Cyber-Deluxe™

OPERATING INSTRUCTIONS
INSTRUCCIONES DE FUNCIONAMIENTO
MODE D'EMPLOI
INSTRUZIONI OPERATIVE
BEDIENUNGSANLEITUNG
操作方法

Fender®
www.fender.com

Cyber-Deluxe™

Parameters

Button	Level Knob	Edit 1st Parameter	Edit 2nd Parameter
Edit Reverb Hall, Arena, Plate, Spring, Ambient, Room	Reverb Out Level	t1 Reverb Time (1.0 – 9.9)	—
Edit Mod. F/X Phaser, Flange, Chorus, Tremolo, Vibratone	Mod. F/X Out Level	rt Rate (1.0 – 9.9)	—
Touch Wah	Mod. F/X Out Level	SE Sensitivity (1.0 – 9.9)	—
Pedal Wah	Mod. F/X Out Level	Fr Wah Frequency (1.0 – 9.9)	—
Edit Delay Digital, Tape, Ducking	Delay Out Level	dt Delay Time (0.3 – 14) *(30ms – 1450ms)*	Fb Feedback (1.0 – 9.9)
Compressor	—	CP Comp Selection (OF, 1, 2, 3, 4)	—
Noise Gate	—	nG NG Selection (OF, 1, 2, 3)	dP NG Depth (1.0 – 9.9)

Utility Menu	Ft Footswitch Assignment	Pd XPedal Assignment	CC Cont Controller Assignment	rc MIDI Receive Channel	tc MIDI Transmit Channel	id SysEx ID	Ec CC Echo	Pt Memory Protect	rP Restore Presets	dU Dump Utilities	dP Dump Preset	dA Dump All Presets
Parameter	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th

PN 057371

Cyber-Deluxe™

Fender Custom Shop

Premium Amp and Effects Combinations

(Stored in Permanent Memory)

Preset Number	Description	Amp Type	Reverb Type	Modulation FX Type	Delay FX Type
00	Stadium Rock	British 3	Arena 2	Chorus 3 (Off)	Tape 3
01	Hang 10	Tweed 1	Spring 4	Chorus 2 (Off)	Tape 1
02	R.I.P.	Modern 3	Ambient 2	Chorus 1	Tape 1 (Off)
03	Morning Light	Blackface 1	Room 2	Vibratone 3	Digital 3 (Off)
04	Euro Trem	British 3	Arena 2 (Off)	Tremolo 2	Digital 1 (Off)
05	Red House	Tweed 3	Arena 2 (Off)	Chorus 2 (Off)	Tape 3
06	Clean Arena	Blackface 2	Arena 2	Phaser 1 (Off)	Digital 1 (Off)
07	Mystic II	Blackface 1	Plate 1	Phaser 1	Digital 3
08	Loco Voco	Modern 1	Ambient 2	Touch Wah	Tape 6
09	Rockabilly	Tweed 1	Room 3	Flange 1	Tape 1
10	Rhapsody	British 1	Hall 1 (Off)	Flange 1	Digital 4 (Off)
11	Think Floyd	British 3	Hall 3	Chorus 2 (Off)	Ducking 4
12	Texas Shuffle	Blackface 3	Spring 1	Vibratone 3	Tape 1
13	Jazz Box	Dyna-Touch 1	Plate 2	Chorus 3 (Off)	Digital 1
14	Drop D'd	Modern 2	Room 2	Chorus 1	Digital 1
15	Barracuda	Dyna-Touch 4	Room 1	Phaser 1	Ducking 4

Your Amp Collection

(Stored in Permanent Memory)

*Use expander for stereo.

Preset Number	Description	Amp Type	Reverb Type	Modulation FX Type	Delay FX Type
16	1949 Champ	Tweed 3	Plate 1 (Off)	Flange 2 (Off)	Tape 3 (Off)
17	1959 Bassman	Tweed 2	Spring 3 (Off)	Vibratone 2 (Off)	Tape 3 (Off)
18	1955 Tweed Deluxe	Tweed 3	Plate 1 (Off)	Flange 2 (Off)	Tape 3 (Off)
19	1965 Deluxe Reverb –	Blackface 1	Spring 1	Chorus 1 (Off)	Digital 1 (Off)
20	1965 Deluxe Reverb +	Blackface 2	Spring 1	Chorus 1 (Off)	Digital 1 (Off)
21	1964 Vibroverb	Blackface 3	Spring 1	Tremolo 2 (Off)	Tape 1 (Off)
22	1986 Princeton Chorus*	Dyna-Touch 1	Spring 1 (Off)	Chorus 1	Digital 3 (Off)
23	1999 Princeton 65	Dyna-Touch 2	Spring 2	Phaser 1 (Off)	Ducking 2 (Off)
24	1999 Stage 100 Drive	Dyna-Touch 3	Spring 2	Chorus 3 (Off)	Digital 4 (Off)
25	1999 Stage 100 More	Dyna-Touch 4	Hall 2	Chorus 3 (Off)	Digital 4 (Off)
26	Jangly British Combo	British 1	Plate 2	Tremolo 2 (Off)	Tape 1 (Off)
27	Vintage Stack	British 2	Plate 1 (Off)	Chorus 2 (Off)	Tape 1 (Off)
28	Modern Stack	British 3	Arena 1 (Off)	Flange 3 (Off)	Digital 4 (Off)
29	Modified Combo	Modern 1	Arena 1 (Off)	Chorus 3 (Off)	Digital 4 (Off)
30	Dual Richter	Modern 2	Arena 1 (Off)	Chorus 3 (Off)	Digital 4 (Off)
31	One Valve	Modern 3	Spring 1	Chorus 1	Digital 3 (Off)

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FENDER MUSICAL INSTRUMENTS CORPORATION
CORONA, CA USA

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Important Safety Instructions

• This symbol warns the user of dangerous voltage levels localized within the enclosure of the unit.

• This symbol advises the user to read all accompanying literature for safe operation of the unit.

- Read, retain, and follow all instructions. Heed all warnings.
- Only connect the electric line cord to an earth grounded AC receptacle in accordance with the voltage and frequency ratings listed under INPUT POWER on the rear panel of this product.
- **WARNING:** To prevent damage, fire or shock hazard, do not expose this unit to rain or moisture.
- Unplug the AC power line cord before cleaning the unit exterior (use a damp cloth only). Wait until the unit is completely dry before reconnecting it to power.
- Maintain at least 6 inches of unobstructed air space behind the unit to allow for proper ventilation and cooling of the unit.
- This product should be located away from heat sources such as radiators, heat registers, or other products that produce heat.
- This product may be equipped with a polarized plug (one blade wider than the other). This is a safety feature. If you are unable to insert the plug into the outlet, contact an electrician to replace your obsolete outlet. Do not defeat the safety purpose of this plug.
- Protect the power cord from being pinched or abraded.
- This product should be serviced by qualified service personnel when: the power supply cord or the plug has been damaged; or objects have fallen, or liquid has been spilled onto the product; or the product has been exposed to rain; or the product does not appear to operate normally or exhibits a marked change in performance; or the product has been dropped, or the enclosure damaged.
- Only use a cart or stand with this product that is recommended by this product's manufacturer.
- The power supply cord of this product should be unplugged from the outlet when left unused for a long period of time, or during electrical storms.
- Do not drip nor splash liquids, nor place liquid filled containers on the unit.
- **CAUTION:** No user serviceable parts inside, refer servicing to qualified personnel only.
- Fender® amplifiers and loudspeaker systems are capable of producing very high sound pressure levels which may cause temporary or permanent hearing damage. Use care when setting and adjusting volume levels during use.

FCC COMPLIANCE NOTICE

This equipment has been tested and found to comply within the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide a reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and if not used in accordance with the instructions, may cause harmful interference to radio communications and there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: reorient or relocate the receiving antenna, increase the separation between the equipment and receiver, connect the equipment into an outlet on a circuit different from that of the receiver. Consult the dealer or an experienced radio/TV technician if help is needed.

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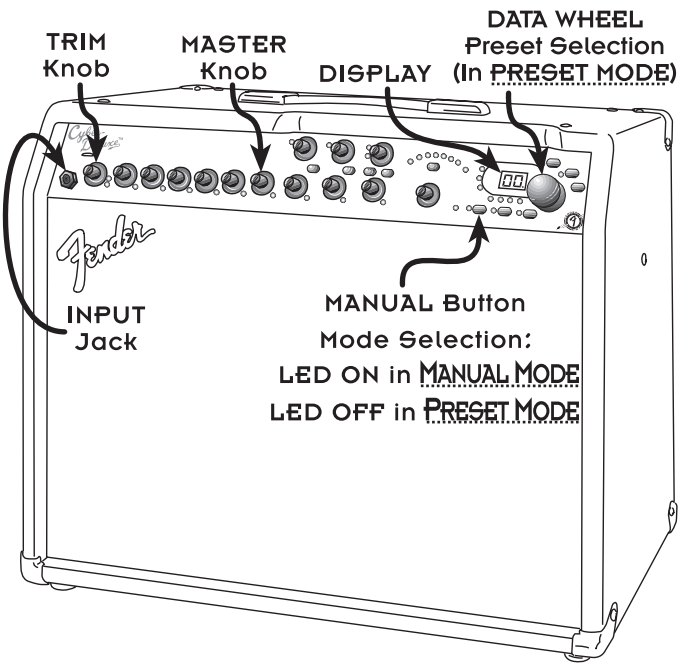
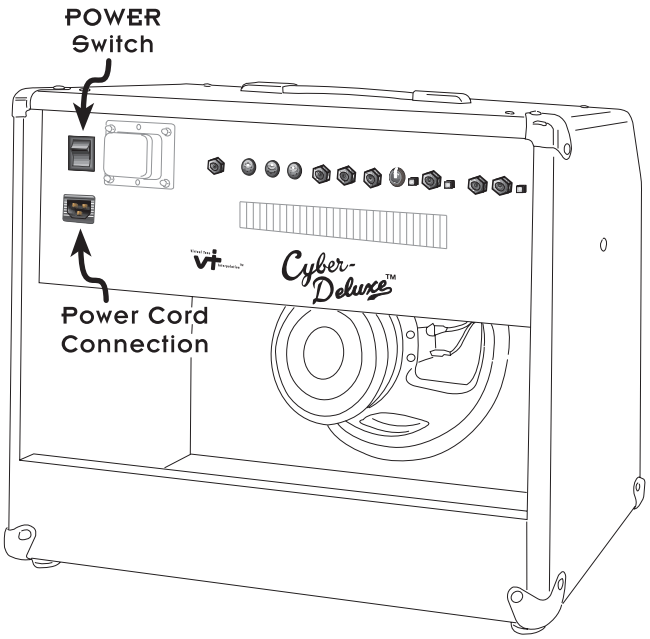
Quick Start



1) Make sure the **POWER** switch is OFF. Connect both ends of the supplied power cord—read Important Safety Instructions on page 3. Plug your guitar into the **INPUT** jack.

2) Turn the **MASTER** level knob down to "1"; switch the **POWER** ON. When "00." appears in the display, the Cyber–Deluxe™ amplifier is ready to play in PRESET MODE.

3) While playing guitar, adjust the **TRIM** knob until the adjacent green LED is ON most of the time and the red LED flashes occasionally at peak playing levels. Set **MASTER** to desired level.



4) Rotate the **DATA WHEEL** to explore other Amp Design presets. Amplifier settings and actual circuit configurations will change automatically! (Note that while in PRESET MODE, front panel knob positions may not reflect actual amp settings until the knobs are "captured"—see Overview Primer on page 8.)

5) The Cyber–Deluxe™ amplifier can also be operated like a traditional amp. Turn the **MASTER** level down, then press the **MANUAL** button to release all preset control of amp settings. In MANUAL MODE, knob positions always reflect current settings—all green capture LEDs are ON. Experiment with Reverb, Modulation and Delay effects and have fun!

Introduction

Your new Cyber–Deluxe™ amplifier is brought to you by the same Tone–team that created the Fender® Cyber–Twin™ amplifier. As the crowning achievements of Fender's most advanced research and development project, Cyber–Series™ amplifiers are endowed with Fender's exclusive **Virtual Tone Interpolation**™ technology (patent number 6,222,110). VTI™ technology enables the Cyber–Deluxe™ amplifier to *be* different amplifiers according to circuit design. Starting with a virtual circuit board, the Cyber–Deluxe™ amplifier "rewires" its fundamental architecture to become the essence of all the amplifier greats — Fender's Blackface™, Dyna–Touch™, Tweed and Modern amps, and even the best of the British amps!

The Cyber–Deluxe™ amplifier allows you to be the amp designer. Start with one of 32 permanent amp and effect setups stored within the Cyber-Deluxe™ amp—twist some knobs, make some changes, then SAVE to one of the 32 *rewritable* preset locations reserved onboard for your original amplifier designs. Or, press MANUAL and start from scratch. MIDI implementation on the Cyber–Deluxe™ amplifier enables you to transfer presets to and from the amp for backup to a PC, or for exchange with other Cyber–Deluxe™ amplifier players.

The Cyber–Deluxe™ amplifier also puts a huge array of studio–quality effects at your command: Reverb, Modulation and Delay effects, enough to satisfy most any sonic appetite. And many are in *stereo*, so you can use the line outputs, headphones, or an additional amp to enjoy a fully ambient stereo dimension. The Cyber–Deluxe™ amplifier's Dyna–Touch™ power amp circuitry and Celestion® speaker deliver powerful, responsive Tone to you and your audience.

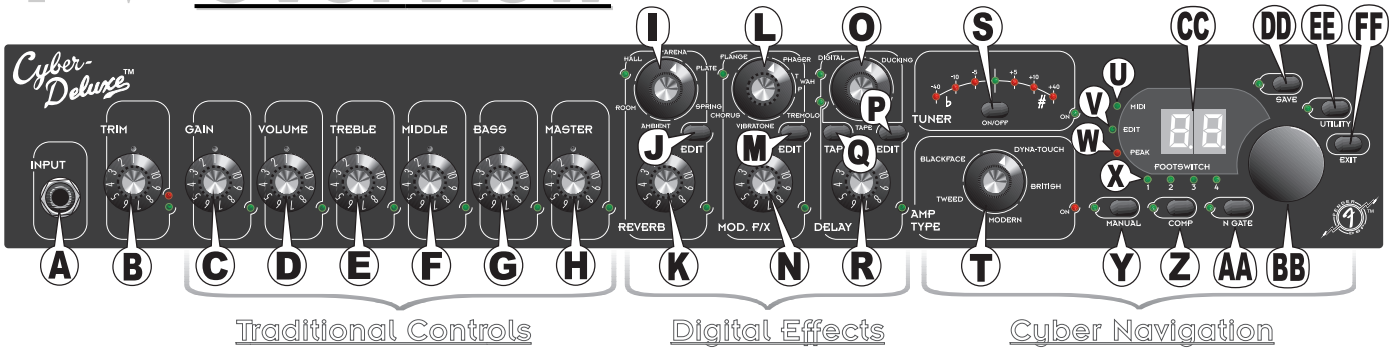
Thank you for choosing Fender®

—Tone, Tradition and Innovation—since 1946

Cyber–Deluxe™ Amplifier Features

- 2 Performance MODES of amplifier configuration—automatic and manual:
  - PRESET MODE: Access 64 Amp Design presets with the DATA WHEEL or remote foot– or MIDI–controller
  - MANUAL MODE: Turn the knobs just as you would on a traditional guitar amp
- 64 Amplifier Design presets:
  - 32 Permanent presets – Great amp and effects setups that are always available
    - 16 Fender® Custom Shop presets – Premium amp and effects *combinations*
    - 16 presets in Your Amp Collection – "Stock" amplifiers
  - 32 Rewritable presets – Create and store your own amp and effects setups in the Player's Lounge
- 3 Banks of studio–quality effects that can be used simultaneously:
  - 16 Reverb selections with LEVEL control and EDIT parameters
  - 16 Modulation effects selections with LEVEL control and EDIT parameters
  - 16 Delay effects selections with LEVEL control and EDIT parameters
- MIDI implementation:
  - 23 Continuous Controllers auto-adjust amp parameters for use with external MIDI equipment (sequencer, computer, foot–controller or Cyber–Series™ amplifier)
  - 1 Assignable Continuous Controller enables foot–pedal control of 1 of 12 programmable parameters
  - System Exclusive functionality for selective preset management and individual system updates
- **Virtual Tone Interpolation™** technology offers 8 Amp Type selections with tone stacks located *before* the drive circuitry and 8 Amp Type selections with tone stacks located *after* the drive circuitry
- 4 Compression level settings
- 3 Noise Gate level settings each with an adjustable depth parameter
- On–board digital chromatic Tuner
- Expression Pedal (optional) provides real–time foot–control of any selected amp parameter—such as Volume or Wah
- 4–button Footswitch (included) provides hands–free access to any 4 favorite presets
- 65 watts of output power
- 12″, 8Ω Celestion® G12T–100 Speaker
- 1 Stereo/Mono EXPANDER Output jack (line level) with PHASE and LEVEL control—Create rich stereo sound using onboard effects and any additional guitar amp
- 2 EFFECTS LOOP jacks with LEVEL switch for compatibility with rack–mount or stomp–box effects devices
- 2 Stereo/Mono SPEAKER SIMULATED LINE OUT jacks

1 ✧ Overview



This section presents each of the knobs, buttons, jacks and LEDs as well as an outline of the basic functionality of the Cyber–Deluxe™ amplifier.

Overview Primer

♬ Each preset contains a complete set of amplifier and effects settings.

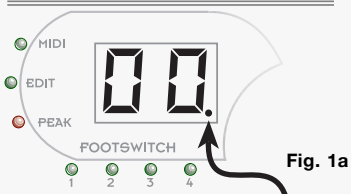


Fig. 1a

♬ "Permanent preset" indicator
- 00.–31. are permanent
- 32–63 are rewritable

Fig. 1b

♬ Nudge a numbered knob to display the preset value (when LED is OFF).

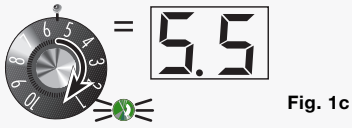


Fig. 1c

♬ Turn a numbered knob to the preset value to capture control of that knob (LED is ON when captured).

Fig. 1d

♬ Hold EXIT and turn any pointer knob until the LED illuminates to find the *preset* amp or effect type.

Fig. 1e

PRESET MODE LED OFF — MANUAL MODE LED ON

♬ Alternate between MODES by pressing the MANUAL button.

PRESET MODE is active whenever the Cyber–Deluxe™ amplifier is first switched ON. When a preset is selected (recalled), the amp is instantly reconfigured to the settings saved within that preset. Presets can be selected using the front panel DATA WHEEL (or 4–button footswitch or by MIDI control). There are 32 preset locations (00.-31.) that are *permanent,* as indicated by the decimal point in the display (**Figure 1a**). There are 32 additional preset locations (32-63) that are *rewritable* for your own amp and effects designs. As any preset is selected, the knob positions usually will ***not*** reflect current amp parameter settings (except when they match coincidentally). However, you can "capture" control of any knob and use it to modify the sound of the Cyber–Deluxe™ amplifier at any time.

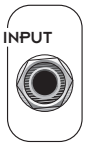
To *capture* (acquire) control of a numbered *level* knob {C through H, K, N, R}, simply turn it to match the stored preset value that appears in the display as the knob is first moved (**Figure 1b**). An associated green LED will come ON to indicate knob capture (**Figure 1c**), and the knob position will then reflect its actual setting—and what is heard. Further adjustments are audible, and the display updates the value in real–time.

A pointer *type* knob {I, L, O, T} will capture *immediately* when turned. Amp and effect types will change instantly from what is in the preset, to what is indicated by the knob pointer. **NOTE:** To determine what amp or effect type is stored within the current preset *without changing it,* press and hold the EXIT button {FF} while turning the type knob until its capture LED comes on—then release EXIT (**Figure 1d**).

Captured knobs (and their settings) are active *temporarily*. Save the preset *before* selecting a different preset or switching to MANUAL MODE (see SAVE on page 12).

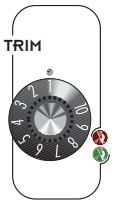
MANUAL MODE is activated by pressing the MANUAL button—the adjacent green LED illuminates in MANUAL MODE (**Figure 1e**). Amplifier settings are released from PRESET MODE control, and the front panel knobs behave traditionally—all knobs are captured, as indicated by the illumination of capture LEDs. To return to PRESET MODE, press the MANUAL button again and the MANUAL LED will turn OFF.

Front Panel Overview



A. INPUT JACK

Input connection for your guitar.

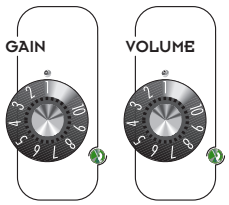


B. TRIM

Sets the input signal level for proper analog–to–digital conversion. This knob is always active, and does not have a capture LED (not preset programmable). Adjust TRIM so the green LED is ON most of the time at normal playing levels and the red LED flashes occasionally while playing at peak intensity.

Traditional Controls

When captured (LED ON), GAIN, VOLUME, TREBLE, MIDDLE, BASS and MASTER knobs operate as they would on a traditional guitar amplifier.

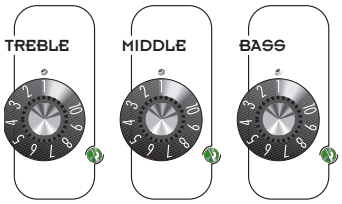


C. GAIN

Controls the signal distortion level and contributes to overall amp loudness. Use VOLUME {D} to adjust for (normalize) any undesired volume level change resulting from a GAIN level change.

D. VOLUME

Controls the post–distortion signal level and contributes to overall amp loudness. Use in conjunction with GAIN {C} to normalize volume differences between presets.



♬ The location of the TREBLE, MIDDLE and BASS tone controls (either *pre– or post–distortion),* is determined by the current AMP TYPE {T} selection (see Amp Type Selections on page 16).

E. TREBLE

Controls the high–frequency tone level.

F. MIDDLE

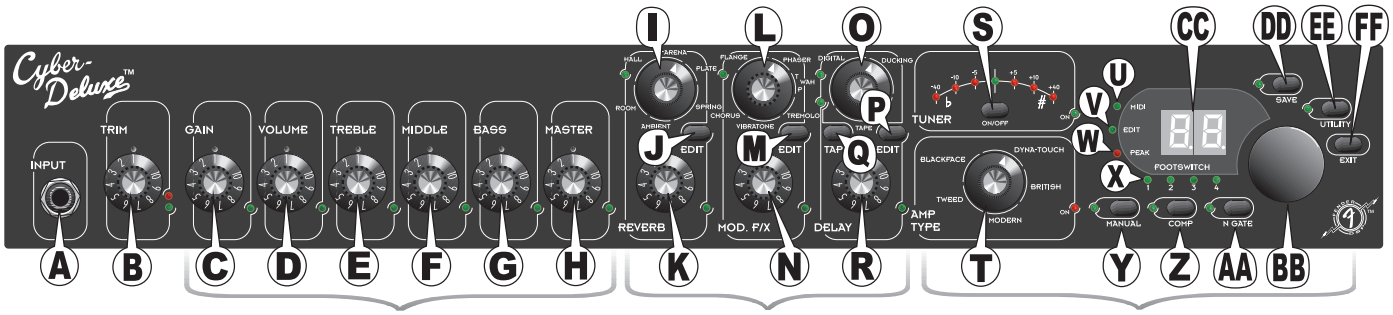
Controls the mid–frequency tone level.

G. BASS

Controls the low–frequency tone level.

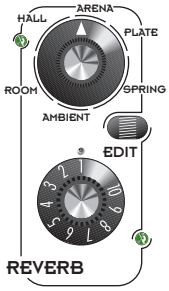
H. MASTER VOLUME

Controls the overall volume output from the amplifier in conjunction with the other level controls, TRIM {B}, GAIN {C}, and VOLUME {D}. MASTER VOLUME is the final “gatekeeper” limiting the maximum output level of the Cyber–Deluxe™ amplifier and the MASTER *knob position* sets that absolute limit—even when controlling MASTER with an expression pedal or MIDI messages. MASTER VOLUME is not preset programmable.



Digital Effects

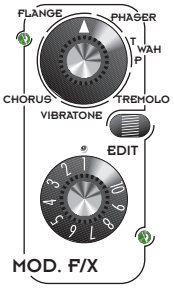
The 3 effects groups have similar functions outlined below {I through R}. See Effects Editing, starting on page 19 for detailed editing operations.



I. REVERB SELECTION
Selects from 16 variations of 6 Reverb types.

J. REVERB EDIT
Selects a Reverb parameter to edit.

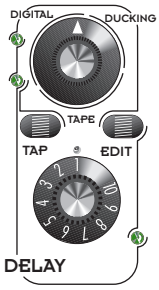
K. REVERB LEVEL
Adjusts the Reverb level.



L. MODULATION EFFECTS SELECTION
Selects from 16 variations of 6 Modulation effect types.

M. MODULATION EFFECTS EDIT
Selects a Modulation effect parameter to edit.

N. MODULATION EFFECTS LEVEL
Adjusts the Modulation effect level.



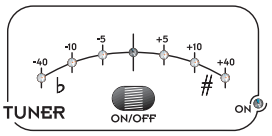
O. DELAY EFFECTS SELECTION
Selects from 16 variations of 3 Delay effect types.

P. DELAY EFFECTS EDIT
Selects a Delay effect parameter to edit.

Q. DELAY EFFECTS TAP
Provides an intuitive way to rhythmically set the Delay time interval, simply by tapping in the desired tempo. The adjacent green LED flashes to the interval.

R. DELAY EFFECTS LEVEL
Adjusts the Delay effect level.

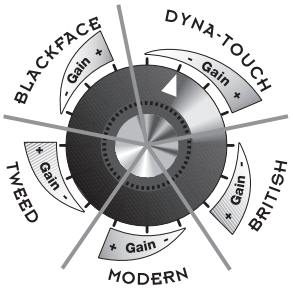
Cyber Navigation



♬ TRIM {B} level should be set properly for optimal Tuner performance (see TRIM on page 9).

S. TUNER ON/OFF

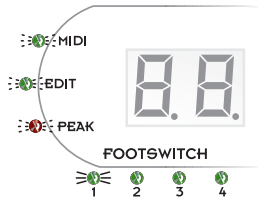
Activates/deactivates the Tuner. When the Tuner is ON, the green "ON" LED illuminates and audio output is muted. Tune your guitar by striking a single string. The note closest to that played will appear in the display. Only sharps (#) are indicated, so for example, D-flat will appear as "C#" (C-sharp) in the display. Watch the arc of Tuner LEDs while tuning a string—when the green center LED is ON, the string is properly tuned to the displayed note. The red LEDs indicate approximately how much in "cents" the string is out of tune. (There are 100 cents between adjacent semi-tones.)



T. AMP TYPE

Selects from 16 variations of 5 amplifier types. Clockwise selections within each AMP TYPE increase Gain and response from clean to overdriven, as illustrated. Specific characteristics of each variation are detailed in the next section (see the Amp Type Selections on page 16).

NOTE: Presets will have several amplifier parameters optimized for their specific Amp Type settings. Changing the Amp Type could result in sudden tonal and/or volume changes. This is easily remedied by readjusting Gain, Volume and Tone settings.



U. MIDI LED

Indicates MIDI activity. This green LED flashes while the Cyber-Deluxe™ amplifier is transmitting or receiving MIDI information.

V. EDIT LED

Indicates when editing has been initiated by pressing the COMP button {Z}, the N GATE button {AA}, or any of the effects EDIT buttons {J, M, P}. When the EDIT LED is blinking, the Cyber–Deluxe™ amplifier is waiting for user–input via the DATA WHEEL {BB}.

W. PEAK LED

Indicates when the digital signal is clipping (distorting). If undesirable distortion is heard while the red PEAK LED is flashing, reduce the VOLUME {D} level and double–check the TRIM {B} setting.

X. FOOTSWITCH SELECTION LEDs

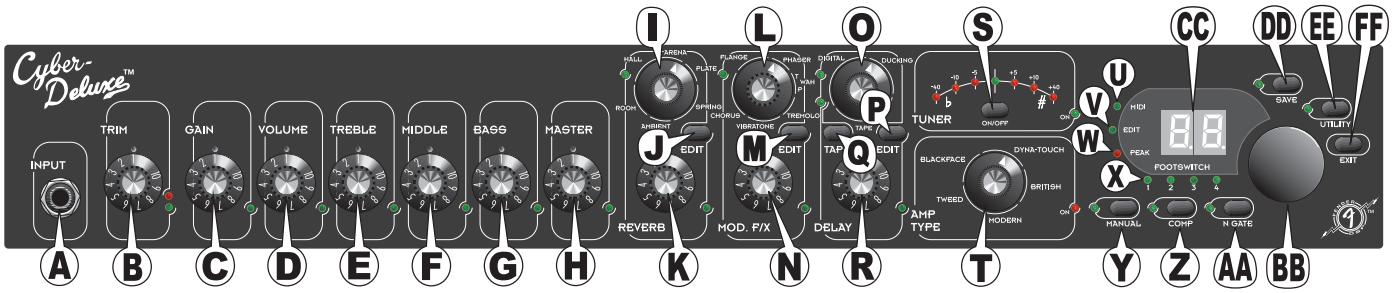
Indicate when the current preset is assigned to any of the 4 footswitch buttons (see FOOTSWITCH JACK on page 13).

Y. MANUAL

Toggles between MANUAL MODE and PRESET MODE. When MANUAL MODE is selected, the adjacent green LED is ON, and "– –" is displayed indicating that the audible sound is not associated with any specific preset.

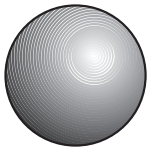
Z. COMPRESSOR

Accesses Compressor settings for the current preset (or while in MANUAL MODE). Press once, then use the DATA WHEEL {BB} to select from 4 compression settings, or to turn the Compressor OFF. The adjacent green LED is ON anytime the Compressor is active. Press EXIT {FF} when selection is complete. See Compressor Settings on page 23.



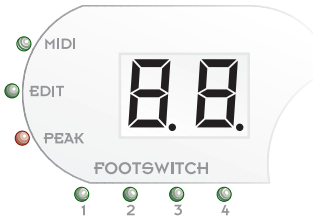
AA. NOISE GATE

Accesses Noise Gate settings for the current preset (or while in MANUAL MODE). Press once, then use the DATA WHEEL {BB} to select from 3 Noise Gate types, or to turn the Noise Gate off. Press the button a second time to adjust the depth from 1.0 to 9.9. The adjacent green LED will be ON any time the Noise Gate is active. Press EXIT {FF} when selection/adjustment is complete. See Noise Gate Settings on page 23.



BB. DATA WHEEL

- Selects presets when the Cyber–Deluxe™ amplifier is in PRESET MODE
- Sets values when editing Compressor, Noise Gate or effects parameters
- Set assignments for most Utility functions



CC. DISPLAY SCREEN

- Displays the current preset number in PRESET MODE
- Displays "— —" in MANUAL MODE
- Displays the closest note to that being played while using the Tuner
- Displays the value of most knob settings as they are adjusted
- Displays the *mnemonic code* (abbreviation) for parameters and their numeric values when an EDIT button {J, M or P} is pressed

DD. SAVE

♬ Use SAVE to COPY any of the 64 presets, *with or without* modifications, to a rewritable preset location (32-63).

♬ The red SAVE LED always flashes in MANUAL MODE and after any parameter is modified in PRESET MODE as a reminder to SAVE.

Saves the current amplifier configuration to memory:

1) Press SAVE once and the display will flash a rewritable preset location.
2) Select any rewritable preset location (32-63) using the DATA WHEEL {BB}.
3) Press SAVE again and the *preexisting contents of the displayed preset location will be overwritten* with the current amplifier configuration.

NOTE: If a different preset is selected before the current configuration is saved, any active changes are lost.

EE. UTILITY

Accesses Utility settings for:

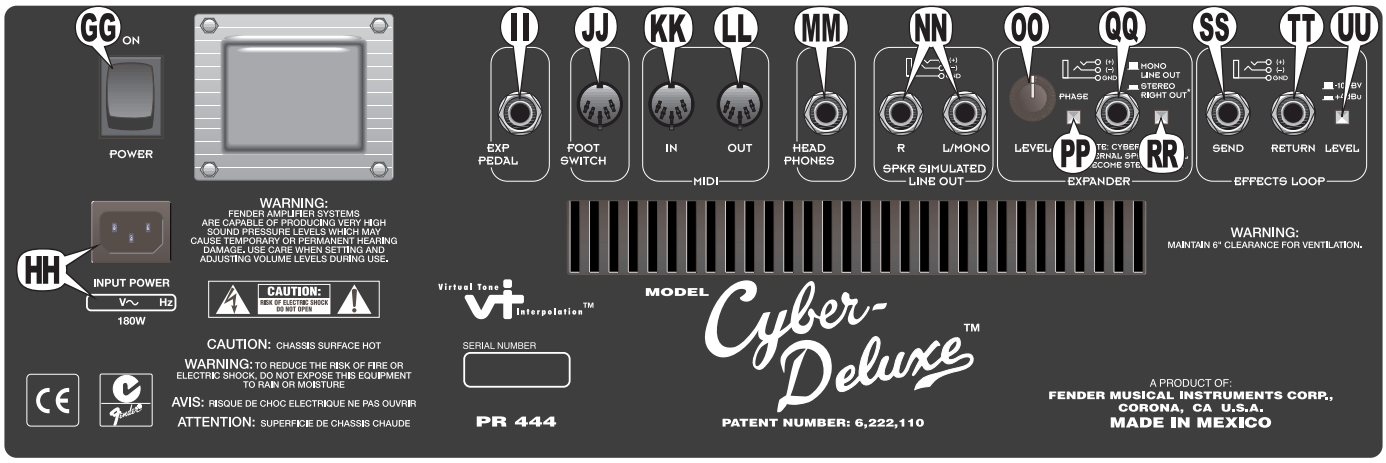
- MIDI/System management (see Utility Menu Functions on page 25)
- 4–button Footswitch—Preset Assignment (see page 25)
- Expression Pedal—Parameter Assignment (see page 26)

The adjacent green LED will be ON while navigating through the Utility menu. Press EXIT {FF} when selections are complete.

FF. EXIT

Returns the Cyber-Deluxe™ amplifier to the most recent play mode (*PRESET* or *MANUAL*) after using the Tuner and after editing effects, Compressor, Noise Gate or Utility parameters. (EXIT will also return the amplifier to PRESET MODE from MANUAL MODE.)

Rear Panel Overview



GG. POWER

Switches Power ON or OFF to the Cyber–Deluxe™ amplifier.

HH. IEC POWER CORD SOCKET

Connection for the included power cord. Connect to a grounded AC outlet in accordance with the voltage and frequency rating listed on the rear panel of the unit.

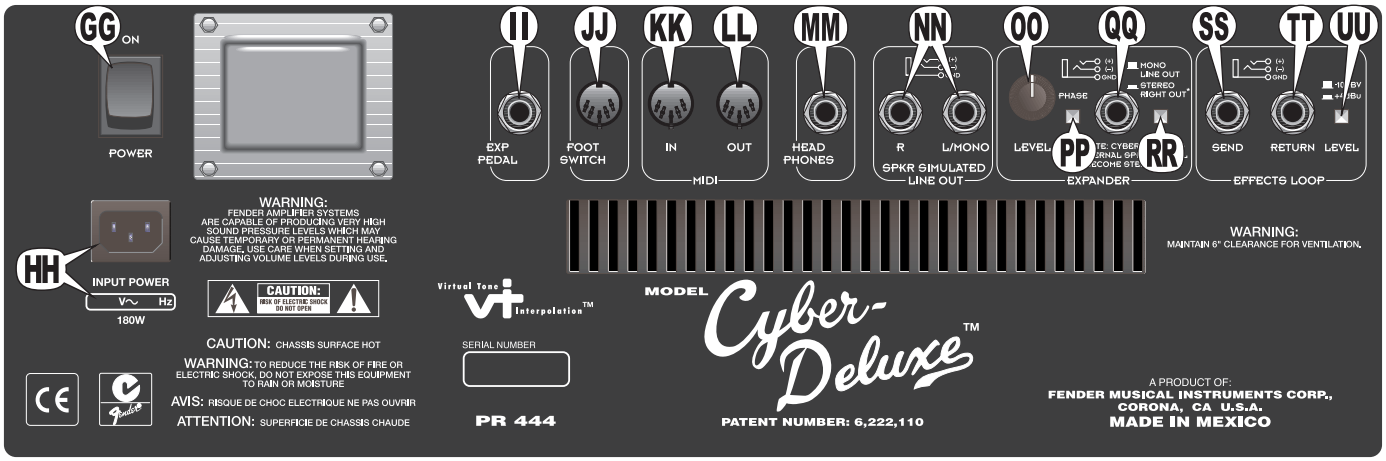
II. EXPRESSION PEDAL JACK

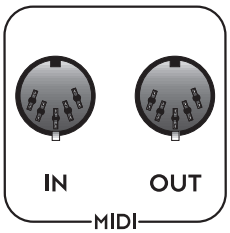
Connection for a standard expression foot pedal (optional) used to remotely control the function of any front panel numbered knob, except for TRIM {B}. It can also be assigned to control the primary Reverb, Modulation or Delay effect parameter. The assignment is preset programmable (see Expression Pedal—Parameter Assignment on page 26).

JJ. FOOTSWITCH JACK

Connection for the included Fender® 4–button footswitch used to access four favorite presets hands-free. The front panel footswitch LEDs {X} indicate active footswitch buttons (see 4–Button Footswitch—Preset Assignment on page 25).

NOTE: For best results, use the supplied 5-pin DIN cable for connection. Use of some MIDI–type cables can cause erratic footswitch operation.





KK. MIDI IN PORT

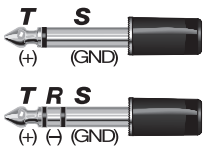
Standard MIDI connection used to receive data from an external MIDI device (see MIDI Capabilities on page 27).

LL. MIDI OUT PORT

Standard MIDI connection used to transmit data to an external MIDI device (see MIDI Capabilities on page 27).

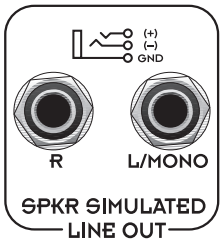
MM. HEADPHONES JACK

Connection for headphones using a standard 1/4″ stereo phone plug. Use of this jack automatically mutes the Cyber–Deluxe™ amplifier speaker and EXPANDER jack {QQ}. This stereo output incorporates *speaker simulation circuitry* to produce sound similar to that of miked guitar amp speakers (compensating for the frequency response of headphones).



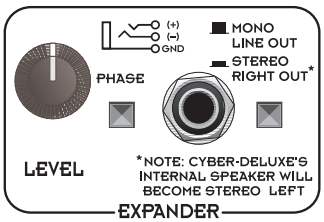
Cable Type and Signal Quality

NOTE: Jacks NN, QQ, SS and TT are all impedance balanced *TRS* (Tip–Ring–Sleeve) connections, with (+) on tip and (-) on ring. Using standard *TS* (Tip–Sleeve) mono guitar cords with these jacks is acceptable, but the use of 3-conductor (stereo-type) *TRS* cords could significantly improve sound quality (signal/noise ratio) in certain situations.



NN. LINE OUT JACKS

Line–level stereo output connections for use with sound reinforcement and recording equipment. These outputs also incorporate *speaker simulation circuitry*. For (summed) mono output, use only the L/MONO jack.



OO. EXPANDER LEVEL

Balances the signal level sent to an external guitar amplifier connected to the EXPANDER jack {QQ}, to compensate for differences in apparent volume output.

PP. EXPANDER PHASE SWITCH

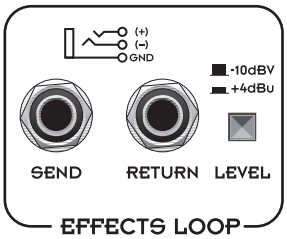
Reverses the phase of the signal at the EXPANDER jack {QQ}, which could improve the overall sound when the expander function is used with certain other guitar amplifiers. Select the switch position that sounds the best.

QQ. EXPANDER LINE OUT JACK

Line–level output connection for use in a mono or stereo expansion configuration. Connect to the power amp input, or the line–in jack on another guitar amplifier. This output does *not* incorporate *speaker simulation circuitry* and therefore will sound best linked to a *guitar* amplifier, rather than a bass or keyboard amplifier or full-range PA system.

RR. EXPANDER MONO/STEREO SWITCH

Selects either MONO or STEREO RIGHT CHANNEL output for the EXPANDER jack {QQ}. When this switch is OUT, both the internal speaker and the EXPANDER jack produce a (summed) MONO signal. When this switch is IN, the internal speaker produces the LEFT stereo channel, and the expansion amplifier/speaker produces the RIGHT stereo channel. **NOTE:** The Cyber–Deluxe™ amplifier speaker will *always* produce a summed MONO signal, regardless of switch position, when the EXPANDER jack is not used.



SS. EFFECTS LOOP SEND JACK

Output for connection to the input jack of an external effects device.

TT. EFFECTS LOOP RETURN JACK

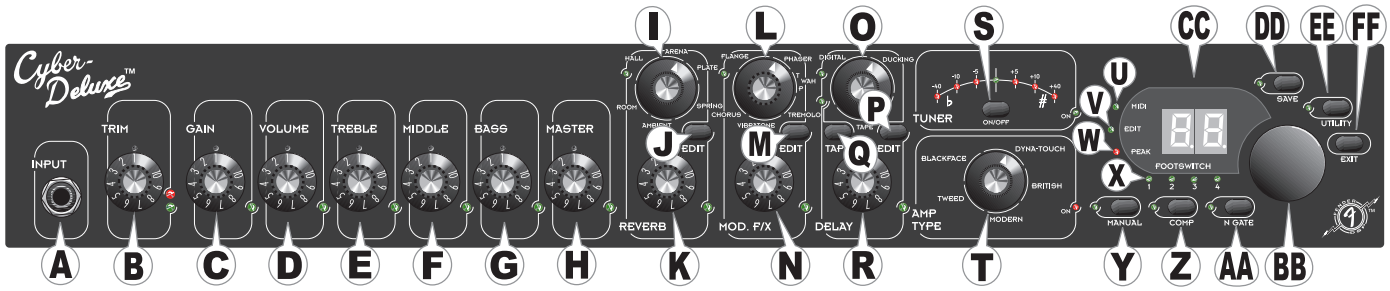
Input for connection from the output jack of an external effects device.

UU. EFFECTS LOOP LEVEL SWITCH

A 2–position switch for setting compatibility with effects devices:

- Switch OUT (–10dBV) for use with most foot pedal type effects
- Switch IN (+4dBu) for use with most professional rack-mounted effects

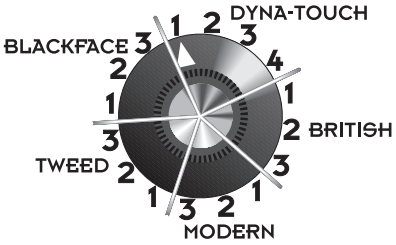
2 ✧ Presets In-Depth



Amp Types & Effects Defined

The following 4 tables offer definitions for *Amp Type Selections* and *Effects Selections*—essential components of each preset. This information is useful when designing a preset or selecting one to play.

Amp Type Selections

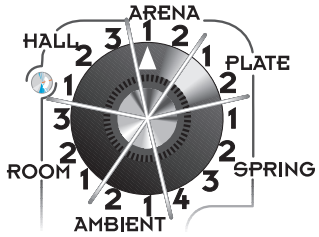


The AMP TYPE pointer knob selects variations of 5 fundamental amp circuitry types. The characteristics of each variation are described in the following table:

AMP TYPE	SELECTION	GAIN	GENERAL DESCRIPTION	TONE CONTROL LOCATION
TWEED	1	CLEAN	Tweed–era with '59 Bassman® amplifier tone controls	PRE–DISTORTION
	2	CRUNCH		
	3	HIGH		
BLACKFACE	1	CLEAN	Vintage Fender® Blackface™ amplifier tone controls	PRE–DISTORTION
	2	CRUNCH		
	3	HIGH		
DYNA-TOUCH	1	CLEAN	Direct from the Fender® Dyna–Touch™ series amplifiers	PRE–DISTORTION
	2	HIGH		POST–DISTORTION
	3	HIGHER		
	4	MAX		
BRITISH	1	CRUNCH	Jangly British combo	PRE–DISTORTION
	2	HIGH	Vintage British stack	POST–DISTORTION
	3	HIGHER	Modern British stack	
MODERN	1	MAX	Modified combo	POST–DISTORTION
	2		Heavy Metal stack	
	3		Heavy Metal combo	

NOTE: Presets will have several amplifier parameters optimized for their specific Amp Type settings. Changing the Amp Type could result in sudden tonal and/or volume changes. This is easily remedied by readjusting Gain, Volume, and Tone settings.

Effects Selections



REVERB Selections

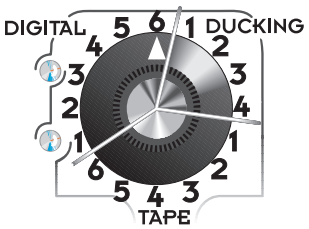
The REVERB pointer knob selects variations of 6 Reverb types. The characteristics of each variation are described in the following table:

REVERB TYPE	SELECTION	GENERAL DESCRIPTION	ADDITIONAL NOTES
AMBIENT	1	Very small space with typical brightness	Simulates the sound of a very small acoustic space
	2	Small space with darker frequency response	
ROOM	1	Dark sounding room with short decay	Simulates the reverberation of a small room
	2	Bright room with medium decay	
	3	Dark room with medium decay	
HALL	1	Dark sounding hall with medium decay	Simulates the sound of auditoriums and concert halls
	2	Bright concert hall with medium decay	
	3	Medium–bright hall with long decay	
ARENA	1	Dark frequency response with long decay	Simulates the sound of a large arena
	2	Bright frequency response with long decay	
PLATE	1	Medium–bright plate response	Simulates a recording studio plate reverb system with bright, yet warm timbres
	2	Bright plate response with long decay	
SPRING	1	Medium–bright Blackface™ Reverb	Typical Blackface™ era Reverb used on models such as the '65 Twin Reverb® and '65 Deluxe Reverb® amplifiers
	2	Bright Blackface™ Reverb with longer decay	
	3	Dark '63 Fender® Reverb Unit with long decay	Simulates the sound and *pre–drive* circuitry connection of an original '63 Fender® Reverb Unit
	4	Bright '63 Fender® Reverb Unit with long decay	

MOD F/X Selections

The MOD. F/X pointer knob selects variations of 6 Modulation effect types. The characteristics of each variation are described in the following table:

FX TYPE	SELECTION	GENERAL DESCRIPTION	ADDITIONAL NOTES
CHORUS	1	Slow sweep rate with high depth	Lush chorus effect with smooth triangle wave LFO delay modulation
	2	Medium sweep rate with high depth	
	3	Fast sweep rate with low depth	
FLANGE	1	Slow sweep rate with medium depth	Deep flange effect with smooth triangle wave LFO delay modulation
	2	Slow sweep rate with high depth	
	3	Fast sweep rate with medium depth	
PHASER	1	Medium sweep rate with medium depth	Twelve–stage stereo phase shifter effect
	2	Fast sweep rate with low depth and feedback	
WAH	1 (**T**ouch)	Wah effect that responds to playing strength	Wide–range dynamic touch–control
	2 (**P**edal)	Foot–pedal controlled Wah effect	Faithful reproductions of two popular Wah pedals
TREMOLO	1	Medium–fast rate with high duty cycle	A Tremolo effect with the sound of a vintage Fender® Blackface™ amplifier, with adjustable high/low volume ratios
	2	Fast rate with high depth	
	3	Fast rate with medium–high depth and duty cycle	
VIBRATONE	1	Slow rate with medium depth	Faithful reproduction of the CBS®–era Fender® Vibratone rotating speaker cabinet
	2	Fast rate with high depth	
	3	Fast rate with medium depth	

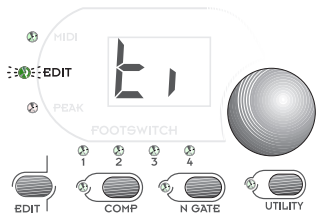


DELAY Selections

The DELAY pointer knob selects variations of 3 Delay effect types. The characteristics of each variation are described in the following table:

DELAY TYPE	SELECTION	GENERAL DESCRIPTION	ADDITIONAL NOTES
TAPE	1	130ms delay, low feedback, medium wow & flutter	Convincing simulation of vintage tape delay, with adjustable *wow & flutter* (random frequency response and pitch variations)
	2	120ms delay, high feedback, medium–high wow & flutter	
	3	300ms delay, low feedback, medium wow & flutter	
	4	450ms delay, low feedback, low wow & flutter	
	5	600ms delay, low feedback, medium–high wow & flutter	
	6	650ms delay, low feedback, high wow & flutter	
DIGITAL	1	100ms delay, medium feedback, bright repeats (panning)	***Stereo -*** Digital delay with *auto–panning* that can be heard when using headphones, both LINE OUTPUT jacks, or second amplifier plugged into the EXPANDER jack
	2	230ms delay, single repeat (panning)	
	3	400ms delay, low feedback (panning)	
	4	460ms delay, medium feedback, bright repeats (panning)	
	5	800ms delay, medium feedback, dark repeats (panning)	
	6	1.4 second medium feedback, bright repeats (panning)	
DUCKING	1	220ms delay, medium feedback, high ducking	Repeating delays *duck* (drop to the background) while you are playing to reduce audio overlap or "muddiness"—the delay tail comes to the foreground when you stop playing
	2	350ms delay, medium–high feedback	
	3	460ms delay, medium feedback	
	4	650ms delay, medium feedback, high ducking	

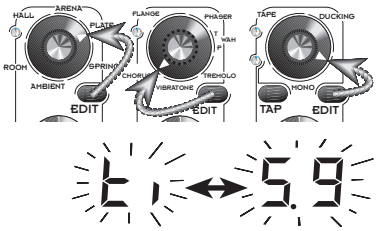
Preset Edit Menus



This section explains how to edit preset parameters that are within menus. The edit process: 1) ***Access*** a parameter (menu item) using a button listed below, 2) ***Edit*** the parameter value using the DATA WHEEL, 3) Press EXIT, 4) Save the edited preset using the procedure on page 12, if desired.

Parameters for:	Button	How to Edit
Reverb	**EDIT** {J}	*See page 20*
Modulation effects	**EDIT** {M}	*See page 20*
Delay effects	**EDIT** {P}	*See page 22*
Compressor	**COMP** {Z}	*See page 23*
Noise Gate	**N GATE** {AA}	*See page 23*
Expression pedal	**UTILITY** {EE}	*See page 26*

Effects Editing



♬ Parameter "code" and parameter "value" alternately display when any EDIT button is pressed.

♬ EDIT operations automatically return the amp to the play mode after 45 seconds of inactivity.

You can *access* parameters for the currently selected effect in each effects group by pressing the EDIT button one or more times. You can then *edit* the parameter value by turning the DATA WHEEL.

When an EDIT button is pressed, a two letter parameter code and the parameter's current value are alternately displayed. The green EDIT LED also flashes until editing has ended.

After editing one or more parameter values with the DATA WHEEL, press EXIT to end the edit process. Ending the edit process will keep your changes active . . . Save your changes to a new preset to secure them.

The EDIT parameters for REVERB, MOD. F/X and DELAY effects groups are covered on the next 3 pages. Normally, the EDIT button will access one parameter for each REVERB and MOD. F/X and 2 parameters for DELAY, but in the Advanced Edit Mode you have access to 4 parameters for each effects group selection (see Advanced Edit Mode, below).

Advanced Edit Mode

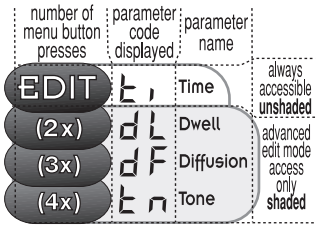
♬ Generally, it is unnecessary to edit the additional parameters of Advanced Edit Mode. The most commonly adjusted parameter settings are *always* accessible using the EDIT buttons.

To enable the Advanced Edit Mode: Turn the amplifier OFF. Press and hold in the three EDIT buttons {J, M and P}, then turn the amplifier ON. Release the EDIT buttons after the display lights up. Now each of the EDIT buttons will incrementally access 4 parameters.

To disable the Advanced Edit Mode: Turn the Cyber-Deluxe™ amplifier OFF and ON again.

Reverb – Edit Menu

The parameters *Time, Dwell, Diffusion* and *Tone* apply to all 6 Reverb types. Reverb *Time* is always accessible to edit by pressing the Reverb EDIT button. The *shaded* parameters in the figure and table below, are accessible only in Advanced Edit Mode (see page 19). Edit parameter values with the DATA WHEEL (range is 1.0 to 9.9).



♬ Figures 2a, 2b and 2c illustrate EDIT button operation by showing for each press in turn, the *menu item* (parameter code) as it appears in the display, and the parameter name.

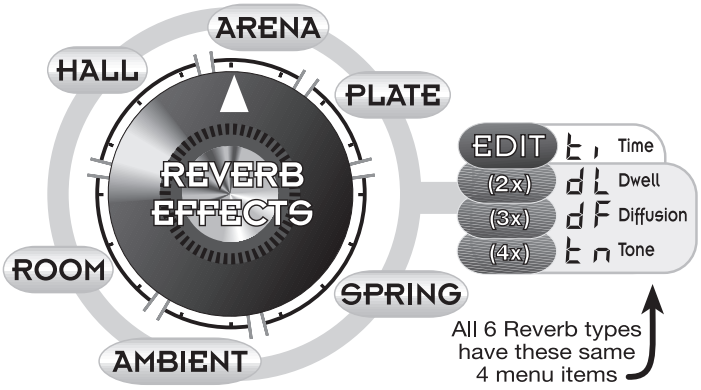


Figure 2a
Reverb Edit Menu

Reverb Parameter Descriptions

AMBIENT, ROOM, HALL, ARENA, PLATE, SPRING	
Time (**ti**)	Length of time (duration) that the Reverb sustains (1.0 is shortest, 9.9 is longest)
Dwell (**dL**)	Signal level going into the Reverb (versus output level controlled by the numbered REVERB knob). (1.0 is minimum, 9.9 is maximum)
Diffusion (**dF**)	Density of the Reverb from sparse with non–uniform decay, to dense with smooth decay (1.0 is sparsest, 9.9 is smoothest)
Tone (**tn**)	Brightness of the Reverb signal (1.0 is darkest, 9.9 is brightest)

Modulation Effects – Edit Menu

♬ *Pedal Wah* requires the use of either an expression pedal or MIDI pedal to control the Wah effect (see page 26).

The *unshaded* parameters in **Figure 2b** (and the associated tables) are always accessible to edit for the currently selected effect, by pressing the Mod. F/X EDIT button. The *shaded* parameters are accessible only in Advanced Edit Mode (see page 19). Edit parameter values with the DATA WHEEL (range is 1.0 to 9.9 for most parameters).

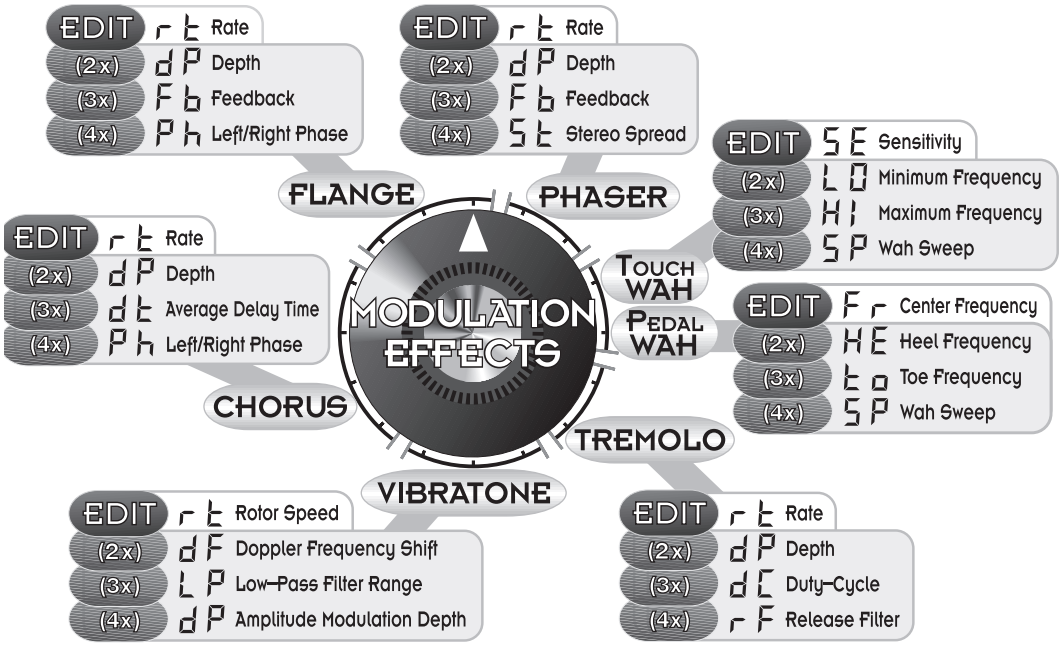


Figure 2b
Modulation Effects Edit Menu

Modulation Effects Parameter Descriptions

CHORUS	
Rate (**rt**)	Sweep rate of the Chorus effect (0.08 Hz displayed as 1.0 is slowest, 10 Hz displayed as 9.9 is fastest)
Depth (**dP**)	Amount of Doppler frequency shift and how apparent the Chorus effect sounds (1.0 is minimum effect, 9.9 is maximum effect)
Average Delay Time (**dt**)	Average delay time of the moving Chorus taps (repeats), use higher settings for doubling effect (1.0 is shortest, 9.9 is longest)
Left/Right Phase[1] (**Ph**)	***Stereo*** - Phase between left and right channel low frequency oscillators (1.0 is minimum stereo effect, 9.9 is maximum stereo effect)

FLANGE	
Rate (**rt**)	Sweep rate of the Flange effect (0.08 Hz displayed as 1.0 is slowest, 10 Hz displayed as 9.9 is fastest)
Depth (**dP**)	Amount of Doppler frequency shift and how apparent the Flange effect sounds (1.0 is minimum effect, 9.9 is maximum effect)
Feedback (**Fb**)	Amount of Flange effect processed signal that is *fed back* (recycled) to the input (1.0 is minimum feedback, 9.9 is maximum feedback)
Left/Right Phase[1] (**Ph**)	***Stereo*** - Phase between left and right channel low frequency oscillators (1.0 is minimum stereo effect, 9.9 is maximum stereo effect)

PHASER	
Rate (**rt**)	Sweep rate of the Phaser effect (0.08 Hz displayed as 1.0 is slowest, 10 Hz displayed as 9.9 is fastest)
Depth (**dP**)	Width of the Phaser sweep – corresponds to how apparent the Phaser effect sounds (1.0 is minimum effect, 9.9 is maximum effect)
Feedback (**Fb**)	Amount of Phaser effect processed signal that is *fed back* (recycled) to the input (1.0 is minimum feedback, 9.9 is maximum feedback)
Stereo Spread[1] (**St**)	***Stereo*** - Amount of stereo separation between left and right channels (1.0 is minimum stereo effect, 9.9 is maximum stereo effect)

Touch WAH	
Sensitivity (**SE**)	Sensitivity of the Wah effect to your playing volume (signal strength) (1.0 is least reactive, 9.9 is most reactive)
Minimum Frequency (**LO**)	Frequency the Wah relaxes to when your playing volume is at minimum (1.0 is lowest frequency, 9.9 is highest frequency)
Maximum Frequency (**HI**)	Frequency the Wah sweeps to when your playing volume is at maximum (1.0 is lowest frequency, 9.9 is highest frequency)
Wah Sweep (**SP**)	Two Wah sweep types: Low–Q (**Lo**) is smooth, High–Q (**Hi**) is extreme

Pedal WAH	
Center Frequency (**Fr**)	The center frequency of the Wah filter (1.0 is lowest, 9.9 is highest)
Heel Frequency (**HE**)	The heel–down Wah frequency (1.0 is lowest, 9.9 is highest)
Toe Frequency (**to**)	The toe–down Wah frequency (1.0 is lowest, 9.9 is highest)
Wah Sweep (**SP**)	Two Wah sweep types: "The Baby's Cryin'" (**Cr**) is modern, "The Real McQ" (**rL**) is vintage

TREMOLO	
Rate (**rt**)	Cycle rate of the Tremolo effect (0.08 Hz displayed as 1.0 is slowest, 10 Hz displayed as 9.9 is fastest)
Depth (**dP**)	Amount the volume level drops with each cycle of the Tremolo effect (1.0 is minimum depth, 9.9 is maximum depth)
Duty–Cycle (**dC**)	Ratio of the high–volume to low–volume intervals in duration (1.0 is shorter high–volume intervals, 9.9 is longer high–volume intervals)
Release Filter (**rF**)	Smoothness of the Tremolo waveform (1.0 is subtle and natural, 9.9 is choppy and percussive)

VIBRATONE	
Rotor Speed (**rt**)	Rate of the virtual rotating speaker baffle (0.08 Hz displayed as 1.0 is slowest, 10 Hz displayed as 9.9 is fastest)
Doppler Frequency Shift (**dF**)	Amount of Doppler frequency shift and how apparent the Vibratone effect sounds (1.0 is minimum effect, 9.9 is maximum effect)
Low-Pass Filter Range (**LP**)	Amount of high frequencies in the Vibratone signal (1.0 is minimum highs (dark tone), 9.9 is maximum highs (bright tone))
Amplitude Modulation Depth (**dP**)	Amount the volume level varies with each cycle of the Vibratone effect (1.0 is minimum effect, 9.9 is maximum effect)

[1]This parameter modifies the stereo capabilities of your Cyber–Deluxe™ amplifier which can be enjoyed using a dual amplifier configuration, through headphones or by using the stereo line outputs.

Delay Effects – Edit Menu

♬ Displayed values for delay times: Multiply displayed value by 100 to calculate the approximate delay time in milliseconds. Note that the DATA WHEEL continues to increment the delay time slightly *past* the maximum displayed value of 14 for a maximum delay time of 1450ms.

The parameters *Delay Time* and *Feedback* are always accessible to edit by pressing the Delay EDIT button 1 or 2 times respectively. The *shaded* parameters in the figure and tables below are available only in Advanced Edit Mode (see page 19). Edit parameter values with the DATA WHEEL (range is 1.0 to 9.9, except for Delay Time which ranges from 0.3 to 14 (30 to 1450 milliseconds)).

Delay Time can also be set by feel with the TAP button (see DELAY EFFECTS TAP on page 10).

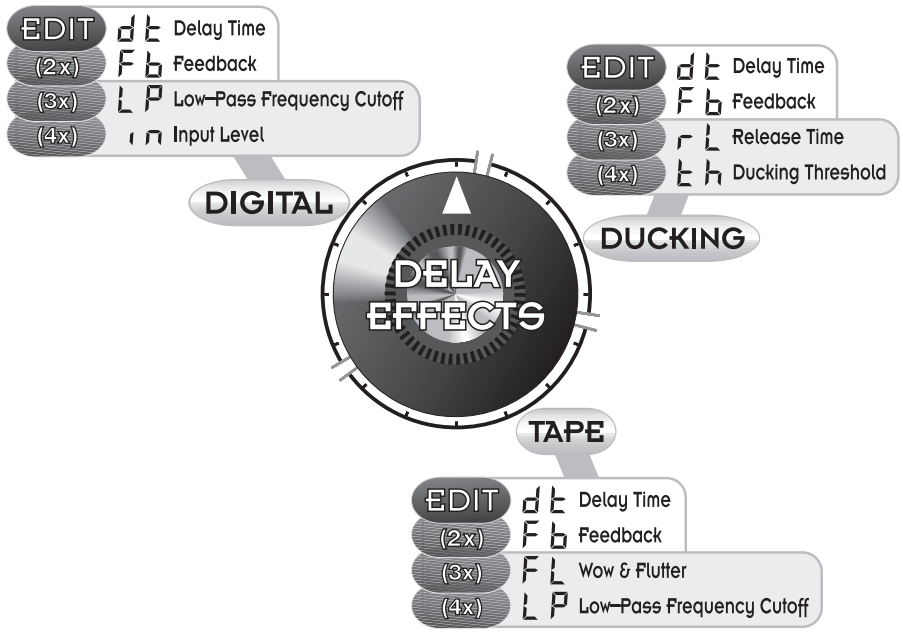


Figure 2c
Delay Effects Edit Menu

Delay Effects Parameter Descriptions

TAPE	
Delay Time (**dt**)	Duration between delay repeats from 30 milliseconds (0.3) to about 1450 milliseconds (14)
Feedback (**Fb**)	Number of delay repeats (1.0 is 1 repeat, 9.9 is many repeats)
Wow & Flutter (**FL**)	Amount of random volume and pitch changes – tape recorder nostalgia effect (1.0 is minimum fluctuation, 9.9 is maximum fluctuation)
Low-Pass Frequency Cutoff (**LP**)	Brightness of the delay signal (1.0 is minimum (dark tone), 9.9 is maximum brightness)

DIGITAL	
Delay Time (**dt**)	Duration between delay repeats from 30 milliseconds (0.3) to about 1450 milliseconds (14)
Feedback (**Fb**)	Number of delay repeats (1.0 is 1 repeat, 9.9 is many repeats)
Low-Pass Frequency Cutoff (**LP**)	Brightness of the delay signal (1.0 is minimum (dark tone), 9.9 is maximum brightness)
Input Level (**in**)	Signal level going into the delay effect (versus output level controlled by the numbered DELAY knob) (1.0 is minimum, 9.9 is maximum)

DUCKING	
Delay Time (**dt**)	Duration between delay repeats from 30 milliseconds (0.3) to about 1450 milliseconds (14)
Feedback (**Fb**)	Number of delay repeats (1.0 is 1 repeat, 9.9 is many repeats)
Release Time (**rL**)	Time the Ducking effect waits before returning the background delay repeat volume to normal (1.0 is shortest wait, 9.9 is longest wait)
Ducking Threshold (**th**)	Sensitivity of the Ducking action to your playing strength (signal level) (1.0 in least reactive, 9.9 is most reactive)

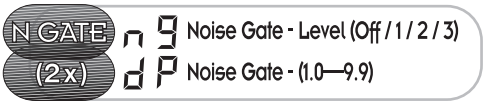
Compressor Settings

The function of the Compressor is to moderate signal level for a constant, steady output by boosting a fading signal level and limiting an excessive signal level. It is often used to increase the sustain of held notes in guitar solos, and to avoid overpowering any other instruments with rhythm guitar. The Cyber–Deluxe™ amplifier offers 4 levels of signal compression (see COMPRESSOR on page 11).

♫ It is generally best to use the lowest settings necessary to achieve satisfactory results when adjusting the Compressor and Noise Gate.

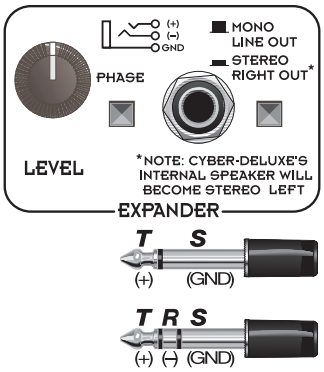
Noise Gate Settings

The function of the Noise Gate is to reduce noise when the guitar input level is near zero (noise is picked up from environmental sources such as fluorescent light fixtures). The Cyber–Deluxe™ amplifier offers 3 levels of Noise Gate; low, medium, and high. Each level has an adjustable depth parameter accessed with a second press (see NOISE GATE on page 12).



3 ✧ Advanced Functions

This section discusses system configuration options and the MIDI features of the Cyber-Deluxe™ amplifier.



Stereo Expander – Auxiliary Amplifier Set-Up

Fully experience the stereo effects onboard the Cyber–Deluxe™ amplifier using the *Stereo Expander* feature. Any second guitar amp, such as a Fender® Princeton® 65 amplifier, can be used, see **Figures 3a** and **3b** below.

1) Switch POWER OFF to both amplifiers.

2) Turn the EXPANDER LEVEL knob {OO} fully counterclockwise.

3) Connect the amplifiers, EXPANDER jack {QQ} to the auxiliary amp's POWER AMP IN or EFFECTS RETURN jack, using a guitar/patch cord (*tip–sleeve* (TS) and *tip–ring–sleeve* (TRS) type cords are acceptable).

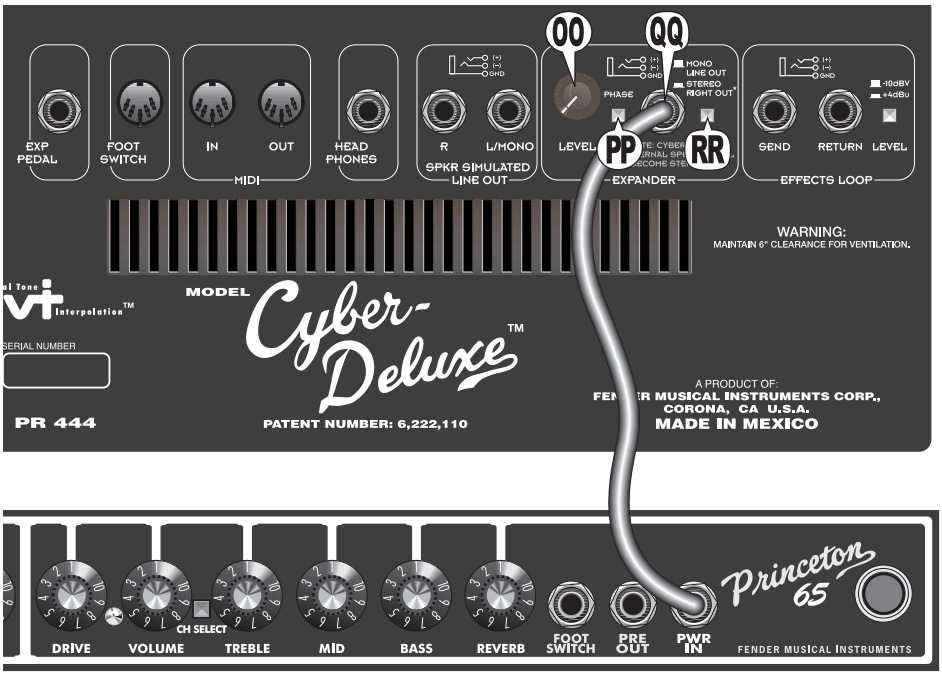


Figure 3a
Stereo Expander Connection

♬ Most, or all panel controls on an auxiliary amplifier are usually bypassed when connecting directly to the power amp input.

4) Set the EXPANDER MONO/STEREO button {RR} to the IN position.

5) Switch POWER ON to the Cyber–Deluxe™ amplifier, then the auxiliary amp.

6) While playing with your guitar and Cyber–Deluxe™ amplifier at normal levels, turn the EXPANDER LEVEL knob {OO} until the amplifiers are equally loud. If any auxiliary amp controls are functional, it may be necessary to adjust them to achieve a balance in volume and tone.

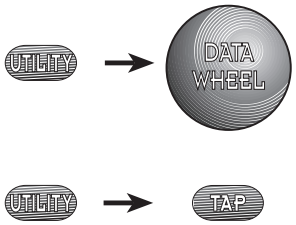
Figure 3b
Stereo Amp Positioning

♬ Separate the amplifiers and balance their loudness levels for a full stereo effect.

7) Toggle the EXPANDER PHASE {PP} switch IN and OUT to determine if either setting improves the stereo effect. This feature corrects the phase differences that could exist between various amplifier models.

Utility Menu Functions

All configuration settings in the Utility menu are global to the amp operating system (independent of the presets), with one exception. *Expression Pedal parameter assignment* is saved as part of each preset.



Press the UTILITY button 1 or more times to *access* each of the Utility menu items shown in **Figure 3c** below. *Edit/execute* menu items using the appropriate ACTIVATION CONTROL.

NOTE: For all Utility menu operations, the number of presses specified assumes that you are starting the operation from the normal play mode (press EXIT if necessary to return to play mode). *You can edit multiple Utility settings before leaving the menu.* Items are accessed in a continuous loop, incrementing with UTILITY presses.

♬ To access Utility menu items more rapidly (or in *reverse* order), press and hold the UTILITY button while rotating the DATA WHEEL.

	UTILITY FUNCTION	ACTIVATION CONTROL
UTILITY (1x)	4-button Footswitch - Preset Assignment	*(Select w/ Footswitch button, **or** DATA WHEEL/TAP)*
(2x)	Continuous Controller / Expression Pedal - Parameter Assignment	*(Select w/ DATA WHEEL)*
(3x)	Continuous Controller Device Number Setting	*(Select w/ DATA WHEEL)*
(4x)	MIDI Receive Channel	*(Select w/ DATA WHEEL)*
(5x)	MIDI Transmit Channel	*(Select w/ DATA WHEEL)*
(6x)	System Exclusive ID Number	*(Select w/ DATA WHEEL)*
(7x)	Continuous Controller Echo Enable / Disable	*(Select w/ DATA WHEEL)*
(8x)	Memory Protect	*(Select w/ DATA WHEEL)*
(9x)	Factory Presets Restore	*(Execute operation w/ TAP button)*
(10x)	Dump Utility Settings	*(Execute operation w/ TAP button)*
(11x)	Dump Preset (current preset only)	*(Execute operation w/ TAP button)*
(12x)	Dump All Presets	*(Execute operation w/ TAP button)*

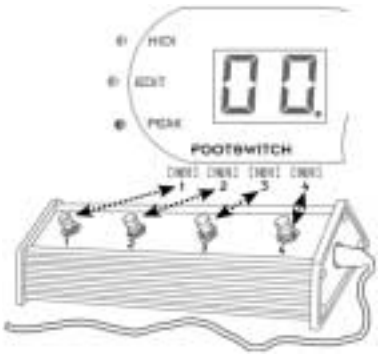
Figure 3c
Utility Menu Items

For a table of Utility menu default values and selection ranges, refer to Appendix 1 on page 31. For information on MIDI messages and preset edit tables, refer to Appendix 2 through Appendix 5 starting on page 32.

4–Button Footswitch – Preset Assignment

You can store four favorite presets for quick access from the 4–button Footswitch.

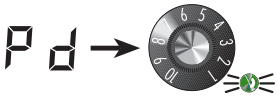
UTILITY (1x) — Ft — 4-button Footswitch - Preset Assignment



1) Select the preset you would like to assign to a Footswitch button using the DATA WHEEL (make it the active preset).
2) Press UTILITY once and "Ft" will be displayed. All FOOTSWITCH LEDs will flash (except any that are already assigned to the current preset, in which case the LED will stay ON without flashing).
3) Select a Footswitch button (1,2,3,4) and store the assignment.
   a) Turn the DATA WHEEL to illuminate the desired FOOTSWITCH LED, then press the TAP button, OR
   b) Press the selected Footswitch button directly.

NOTE: For best results, use the supplied 5-pin DIN cable for connection. Use of some MIDI–type cables can cause erratic footswitch operation.

Expression Pedal – Parameter Assignment



One Utility menu item, *Expression Pedal - Parameter Assignment*, is saved within each preset. Any of the parameters listed in step 2 below can be assigned to an expression pedal (optional) for remote control. This operation also assigns the same parameter to Continuous Controller #11 (for MIDI pedal control).

UTILITY (2x) Pd Continuous Controller / Expression Pedal - Parameter Assignment

1) Press UTILITY repeatedly until "Pd" is displayed. A capture LED will light up to indicate the current assignment.

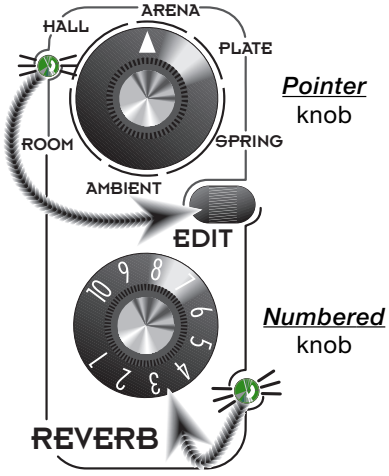
2) Turn the DATA WHEEL to select from the following parameters:

***Numbered** knobs*—

- GAIN .....**Level**
- VOLUME .....**Level**
- TREBLE.....**Level**
- MIDDLE .....**Level**
- BASS .....**Level**
- MASTER.....**Level**
- REVERB .....**Level**
- MOD F/X ....**Level**
- DELAY .....**Level**

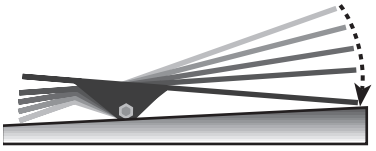
***Pointer** knobs* (see note below)—

- REVERB.....**Time**
- MOD F/X .....**Rate** ***if*** *Chorus, Flange, Phaser* or *Tremolo* is selected
  .....**Sensitivity** ***if*** *T*ouch *Wah* is selected
  ...**Center Frequency** ***if*** *P*edal *Wah* is selected
  .....**Rotor Speed** ***if*** *Vibratone* is selected
- DELAY.....**Time**



3) Press EXIT. Save the preset to preserve pedal assignment.

NOTE: This operation uses the capture LEDs to indicate which parameter is assigned to the expression pedal. When the LED lights up next to a "numbered" knob, the parameter controlled by that knob is indicated (such as REVERB level shown to the left). BUT, if one of the three effects groups' "pointer" knobs is indicated (capture LED ON), *it is the parameter accessed with one press of the EDIT button that is assigned to the expression pedal for the current effect*.



After connecting an expression pedal (see EXPRESSION PEDAL JACK on page 13), move the pedal through its full range of motion to calibrate it for use with the Cyber–Deluxe™ amplifier (a pedal with a "dirty" potentiometer may not calibrate or function properly). **NOTE:** When assigned to control MASTER VOLUME level, the expression pedal is only allowed to adjust values up to the value set by the MASTER knob position. At any MASTER knob setting, its capture LED should be ON when the expression pedal is in the "full toe" (down) position.

In PRESET MODE, the expression pedal must capture control of its assigned parameter by matching the stored value (similar to the way numbered knobs capture their stored values). The knob and expression pedal can capture control from each other at any time simply by matching the value set by the other (see Overview Primer on page 8, for details on capturing).

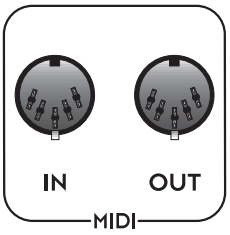
♬ Use an expression (volume) pedal having a 20kΩ potentiometer with a 25A taper, for optimal performance.

♬ Note that when you are adjusting any parameter using an expression pedal, the capture LED for the parameter knob will light up when pedal and knob settings are equal.

MIDI Capabilities

All MIDI features are accessible in the Utility menu and are global to the amplifier operating system (independent of the presets).

Any changes made to the MIDI or system configuration are preserved when power is removed. Default system configuration may be restored by performing a "Factory Presets Restore" procedure (covered on page 29), but be aware that this also restores all presets to factory settings.



The Cyber-Deluxe™ amplifier supports the MIDI interface standard using the **MIDI IN** and **MIDI OUT** jacks on the rear panel, both 5-pin DIN jacks. The amplifier uses Channel messages and System Exclusive (SysEx) messages to accomplish the following tasks:

Receives Channel Messages for:

♬ A receive channel, 1–16 or Omni, must be selected to receive channel messages.

♬ The Cyber–Deluxe™ amplifier does not recognize or transmit System Common messages.

- Program changes (presets "00." through "63").
- Program change activating the Cyber-Deluxe™ amplifier's Tuner remotely.
- Control changes sent from Continuous Controllers (and similar MIDI devices) to control parameters.
- Control changes remotely setting the "tap" value.
- Control changes to enable/disable effects.
- Control changes that have been made to another Cyber-Deluxe™ amplifier that is transmitting on the MIDI network.

Receives SysEx Messages to:

- Download Utility and preset data from other sources (PCs or another Cyber-Deluxe™ amplifier) using "MIDI Dump."
- Edit individual Cyber-Deluxe™ amplifier parameters/settings.

Transmits Channel Messages for:

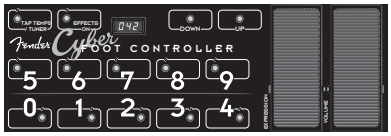
♬ A transmit channel, 1–16, must be selected to transmit channel messages.

- Program changes (presets "00." through "63").
- Control changes that have been made to the amplifier by direct control changes (front panel) or by external control devices such as MIDI CC or expression pedals.

Transmits SysEx Messages to:

- Upload Utility and preset data to other devices (PCs or another Cyber-Deluxe™ amplifier) using "MIDI Dump."

NOTE: When the Continuous Controller Echo feature is enabled, all incoming Continuous Controller control change messages will be retransmitted out of the MIDI Out connection (in addition to messages originated in the amplifier). When disabled, only messages originated by the amplifier are transmitted.



♬ Fender® Cyber Foot Controller™ MIDI device, (P/N 022-9100-000)

The FENDER® Cyber Foot Controller™ MIDI device

The Fender® *Cyber Foot Controller*™ MIDI device, designed specifically for Cyber-Series™ amplifiers, provides standard MIDI capability for all MIDI equipped amplifiers. It provides hands-free selectability of presets, an Effects On/Off switch, a dual mode TAP/TUNER switch, a dedicated Volume pedal, and a general-purpose Continuous Controller expression pedal. The Effects On/Off switch on the Cyber Foot Controller™ MIDI device will enable/disable the MOD. F/X and DELAY effects groups on the Cyber–Deluxe™ amplifier, without affecting the REVERB group.

NOTE: The dual mode Tap/Tuner and Effects On/Off functions may not be supported by foot controllers made by other manufacturers.

Continuous Controller Device Number Setting

This menu item is used to select the Continuous Controller device number that the Continuous Controller device uses.

1) Press UTILITY repeatedly until ”CC” is displayed (the display will then alternate between “CC” and the current setting).
2) Select the desired device number with the DATA WHEEL. The range of values is 01 to 100. Note that “00.” is displayed for device number 100.

The default setting, 11, is used by most CC pedal manufacturers.

MIDI Receive Channel Selection

This menu item is used to select the channel on which the Cyber–Deluxe™ amplifier receives MIDI channel messages (program and CC changes).

1) Press UTILITY repeatedly until “rc” is displayed (the display will then alternate between “rc” and the current setting).
2) Select the desired channel with the DATA WHEEL. The range of values is 1—16, Omni (“On”) and Off (“OF”).

The default setting, Omni (“On”), enables the amplifier to respond to channel messages on all channels. The Off (“OF”) setting configures the amplifier to *ignore* all channel messages. System Exclusive messages will still be accepted and processed if the receive channel is off.

MIDI Transmit Channel Selection

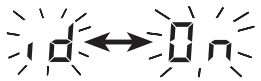
This menu item is used to select the channel on which the Cyber–Deluxe™ amplifier transmits MIDI channel messages (program and CC changes).

1) Press UTILITY repeatedly until “tc” is displayed (the display will then alternate between “tc” and the current setting).
2) Select the desired channel with the DATA WHEEL. The range of values is 1—16 and Off (“OF”).

The default setting is, Off (“OF”). System Exclusive messages (MIDI data dumps) can still be transmitted if the transmit channel is off.

System Exclusive ID Selection

This menu item is used to set the System Exclusive ID number for the Cyber–Deluxe™ amplifier.



1) Press UTILITY repeatedly until “id” is displayed (the display will then alternate between “id” and the current setting).

2) Select the desired ID number with the DATA WHEEL. The range of values is 17—32 and Omni (“On”).

The default setting is Omni (“On”). In Omni mode, the amplifier receives SysEx messages from all Cyber-Deluxe™ amplifier family devices on the network. In Omni mode, if the amplifier transmits a SysEx message, then any receiving Cyber-Deluxe™ amplifier will respond to the SysEx message regardless of its own internal SysEx ID setting. (ID# 33 is used to accomplish this.) Select a specific SysEx device ID# (17–32) if you wish to limit SysEx message response only to Cyber–Deluxe™ amplifier family devices set to the same number.

Continuous Controller Echo

This menu item is used to enable / disable the retransmission of MIDI data received by the Cyber–Deluxe™ amplifier.

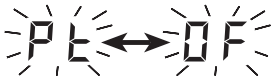
1) Press UTILITY repeatedly until “Ec” is displayed (the display will then alternate between “Ec” and the current setting).

2) Select Off (“OF”) or On with the DATA WHEEL.

The default setting is Off (“OF”). Only SysEx and channel messages *originating in the amplifier* will still be transmitted through MIDI OUT. Additionally, if set to On, all Continuous Controller channel messages received at MIDI IN will be *echoed* (retransmitted) through MIDI OUT.

Memory Protect

This menu item is used to prevent your rewritable presets from being overwritten.



1) Press UTILITY repeatedly until “Pt” is displayed (the display will then alternate between “Pt” and the current setting).

2) Select Off (“OF”) or On with the DATA WHEEL.

The default setting is Off (“OF”). When Memory Protect is On, the amp will remind you by displaying “no” momentarily if SAVE is pressed. Memory Protect also discards MIDI All Preset Dumps to the amplifier and displays “no” until EXIT is pressed. **CAUTION**: Memory Protect ***does not*** prevent a Factory Presets Restore from overwriting all of your rewritable presets.

Factory Presets Restore

CAUTION: This menu item is used to restore the Cyber–Deluxe™ amplifier to the original factory settings, including ***all rewritable presets*** and ***Utility settings—even if Memory Protect is ON!***

♫ A Factory Presets Restore operation will take several seconds to complete.

1) Press UTILITY repeatedly until “rP” is displayed.

2) To execute the restore, press the TAP button.

Dump Utilities

This menu item is used to perform data transfer of Utility information using the MIDI Dump convention.

1) Press UTILITY repeatedly until “dU” is displayed.

2) Press TAP to execute the Utility dump.

This operation uses a SysEx message to transfer the following Utility settings to another amp or PC:

- Continuous Controller Device Number
- MIDI Receive Channel Selection
- MIDI Transmit Channel Selection
- System Exclusive ID Selection
- Continuous Controller Echo Enable/Disable
- Memory Protect

NOTE: The Continuous Controller/Expression Pedal Assignment is preset-specific and is transferred with Dump Preset or Dump All Presets (see below).

Dump Preset

This menu item is used to perform data transfer of the CURRENT preset using the MIDI Dump convention.

1) Press UTILITY repeatedly until “dP” is displayed.

2) Press TAP to execute the current preset dump.

This operation uses a SysEx message to transfer the preset data structure to another Cyber-Deluxe™ amplifier or a PC/MIDI file. If another Cyber-Deluxe™ amplifier is used to receive and store the preset, the target Cyber-Deluxe™ amplifier allows you to select the save location (32 through 63).

Dump All Presets

This menu item is used to perform data transfer of the ALL the presets using the MIDI Dump convention.

1) Press UTILITY repeatedly until “dA” is displayed.

2) Press TAP to execute the all presets dump.

This operation uses a SysEx message to transfer the 64 preset data structures to another Cyber-Deluxe™ amplifier or a PC/MIDI file. If another Cyber-Deluxe™ amplifier is used to receive and store all presets, only the 32 rewritable presets (32 through 63) are stored, and they are replaced in their original order.

4 ✧ Appendices

Appendix 1 Utility Menu Functions

UTILITY MENU	DISPLAY CODE	DEFAULT VALUE	VALUE RANGE	NOTES
Footswitch (Ftsw) Preset Assignment (4-Button)	"Ft"	Ftsw 1 = 32, Ftsw 2 = 33, Ftsw 3 = 34, Ftsw 4 = 35	Any preset (00. thru 63)	Footswitch: Disconnected (1), Connected (1, 2) 1) Use DATA WHEEL to select a Footswitch LED, then press TAP to store, OR 2) Press the button directly on the Footswitch.
CC/Expression Pedal Assignment	"Pd"	Depends on preset	Gain, Volume, Treble, Mid, Bass, Master, Reverb Level, Mod. F/X Level, Delay Level, Reverb time, Mod. F/X Param 1,Delay time	Stored within each preset (each preset can be programmed to use the expression pedal to control a different parameter).
CC Device Number Setting	"CC"	11	1 - 100	CC Device Number 100 is displayed as "00."
MIDI Receive Channel Selection	"rc"	Omni ("On")	1 – 16, Omni ("On"), Off ("OF")	Omni recognizes all channel messages.
MIDI Transmit Channel Selection	"tc"	Off ("OF")	1 – 16, Off ("OF")	
System Exclusive ID Selection	"id"	Omni ("On")	17 – 32, Omni ("On")	Omni recognizes all system exclusive messages and transmits ID 33.
CC Echo	"Ec"	Off ("OF")	On ("On"), Off ("OF")	CC messages received are retransmitted out when echo enabled.
Memory Protect	"Pt"	Off ("OF")	On ("On"), Off ("OF")	Memory Protection guards your rewritable presets from accidental overwriting, but not from Factory Presets Restore.
Factory Presets Restore	"rP"	Not Applicable	Not Applicable	CAUTION! Press TAP to reset all presets and Utility settings to factory default.
Dump Utilities	"dU"	Not Applicable	Not Applicable	Press TAP to MIDI dump all Utility settings.
Dump Preset	"dP"	Not Applicable	Not Applicable	Press TAP to MIDI dump the currently active preset only.
Dump All Presets	"dA"	Not Applicable	Not Applicable	Press TAP to MIDI dump all presets.

Appendix 2 MIDI Implementation Chart

FUNCTION		TRANSMITTED	RECOGNIZED	REMARKS
Basic	Default	X (disabled)	Omni	Channel setting changes stored
Channel	Changed	1 - 16	1 – 16, Omni	in static memory.
	Default	Mode 3	Mode 2	Receiver Mode is front panel
Mode	Messages	X	X	settable to Mode 2 or 4 and
	Altered	X	Mode 2, Mode 4	is stored in static memory.
Note	Note Number	X	X	
Number	True Voice	X	X	
Velocity	Note ON	X	X	
	Note OFF	X	X	
After	Keys	X	X	
Touch	Channel	X	X	
Pitch Bender		X	X	
Control Change		O	O	Assignable Continuous Controller numbers are 1 through 100.
Program	Implemented	O	O	All program changes in Bank #00.
Change	True #	64(00 – 63)	64(00 – 63)	Program changes to program 127 (any bank) activates/deactivates the Tuner.
System Exclusive		O	O	See Appendix 4,5,6
System	Song Position	X	X	
Common	Song Select	X	X	
	Tune Request	X	X	
System	Clock	X	X	
Real Time	Commands	X	X	
	Local On/Off	X	X	
Auxiliary	All Notes Off	X	X	
Messages	Active Sensing	X	X	
	System Reset	X	X	
	GM ON	X	X	

Mode 1: Omni On, Poly Mode 2: Omni On, Mono O: Yes
Mode 3: Omni Off, Poly Mode 4: Omni Off, Mono X: No

NOTES:

The Cyber–Deluxe™ amplifier does not recognize or transmit System Common messages.

All changes to preset parameters, whether by front panel control, expression pedal control, SysEx messages, MIDI channel messages, or continuous controllers, are transmitted via MIDI Out (if a transmit channel is selected). Another Cyber–Deluxe™ amplifier which is connected and configured as a receive MIDI device will “mirror” the preset parameter changes (via continuous controller channels). This process uses SysEx messages to affect preset parameter changes.

Appendix 3

Channel Messages

The Cyber-Deluxe™ amplifier implements MIDI Channel Message convention for Program Changes and Control Changes. The channel messages defined in this appendix are responded to when received on enabled channel(s).

The Cyber-Deluxe™ amplifier's MIDI receive channel must be set to match the MIDI controller transmit channel, or the Omni receive mode (all channel receive) must be enabled, to accomplish the program changes and/or control changes.

These channel messages are also generated and transmitted (if a transmit channel is enabled) by the amplifier when parameters are changed by front panel controls or external control devices (such as MIDI Continuous Controllers or expression pedals). The transmission of preset and control changes is useful for MIDI applications that record the amplifier settings and use them for sequencing (replaying) MIDI control during performances.

Changes to the following parameters are transmitted as control changes:

- All numbered knobs except TRIM.
- The EDIT parameters for each of the Reverb, Mod. FX, and Delay effects selections.

Compressor and Noise Gate setting changes are NOT transmitted via MIDI.

Program Change

Program Change channel messages, are used to select Cyber-Deluxe™ amplifier presets. Program selections correspond one-to-one with preset numbers 00 through 63. All Programs (presets) are located in Bank #00.

♫ The Fender® Cyber Foot Controller™ MIDI device will activate/deactivate the Tuner on a Fender® Cyber-Deluxe™ amplifier when program 127 is sent from *any* bank (#00, #01, #02 or #03).

Bank changes to Bank #01, Bank #02, or Bank #03 are ignored, however, the Cyber–Deluxe™ amplifier will accept a program change to program 127 in ANY bank to activate/deactivate the Tuner.

Control Change

Control Change channel messages are used to accomplish MIDI control of amplifier parameters and settings. MIDI devices which support Continuous Controller protocol can control the parameters listed in the following table with the corresponding CC numbers.

NOTE: When using a sequencer to control the potentiometer parameters with Control Change channel messages, the amplifier will allow control only after the potentiometer setting is "captured" by the sequencer. This is because the Control Change MIDI support is designed with CC pedal users in mind, which prefer the capture method in order to avoid abrupt changes in the audio. To use a sequencer, the potentiometer parameter should be captured first to assume control of the parameter. Prior to a session using a sequencer, acquire control of the parameter by ramping the CC value through full range to capture and then return the value to the desired initial setting. Instantaneous change control messages by the sequencer can then occur. If a potentiometer, Expression Pedal, or CC Pedal *recaptures* control of the potentiometer parameter, or a preset change is made, the sequencer must then *recapture* the potentiometer parameter.

Control Change Messages (Appendix 3 continued)

CC#	PARAMETER/SETTING	VALUE RANGE[1]
07	Master Volume	(0 – 127)
11	Current Expression Pedal Assignment	(0 – 21)
85	Effects On/Off[2]	OFF = (0 – 63), ON = (64 - 127)
102	Gain	(0 – 127)
103	Volume	(0 – 127)
104	Treble	(0 – 127)
105	Middle	(0 – 127)
106	Bass	(0 – 127)
107	reserved	(0 – 127)
108	Master Volume	(0 – 127)
109	Reverb Level	(0 – 127)
110	Reverb Time	(0 – 127)
111	Reverb Dwell (Input)	(0 – 127)
112	Reverb Diffusion	(0 – 127)
113	Reverb Tone	(0 – 127)
114	Mod. F/X Level	(0 – 127)
115	Mod. F/X Parameter 1	(0 – 127)
116	Mod. F/X Parameter 2	(0 – 127)
117	Mod. F/X Parameter 3	(0 – 127)
118	Mod. F/X Parameter 4	(0 – 127)
119	Tap Interval[3]	(0 – 127)
120	Delay Level	(0 – 127)
121	Delay Parameter 1 (Delay Time)	(0 – 127)
122	Delay Parameter 2 (Feedback)	(0 – 127)
123	Delay Parameter 3	(0 – 127)
124	Delay Parameter 4	(0 – 127)

Table Notes:

[1]The Cyber-Deluxe™ amplifier Continuous Controller resolution is 0-127. (It will not accept 16,384 step sizes.)

[2]Effects On/Off does not affect Reverb.

[3]Tap Interval Continuous Controller number is defined by the Fender® Cyber Foot Controller™ MIDI device.

Appendix 4 SysEx ◊ MIDI Dump

The Cyber-Deluxe™ amplifier uses System Exclusive messages to transfer data describing presets and the system configuration information. Initiated from within the Utility menu, preset and Utility information can be transferred to another Cyber-Deluxe™ amplifier, PC, or other MIDI device using the MIDI Dump convention. The Cyber-Deluxe™ amplifier can also accept a valid MIDI Dump of the same information from another amp or MIDI device, and the amplifier preset(s) and/or utilities are replaced with this information.

This appendix contains tables describing the System Exclusive message components and protocol for MIDI Dump.

The System Exclusive device ID must be set to Omni ("On"), or to match to accomplish the data transfers.

NOTE: The nomenclature for values uses an H to designate that the one-byte value is expressed in Hexadecimal (00H – FFH).

System Exclusive Header

VALUE	DESCRIPTION
F0H	Start of System Exclusive Message
08H	Fender Manufacturer ID
nnH	nn = Device ID (minus one)
21H	Amp ID number 21H. The upper nibble identifies the Cyber-Deluxe™ amplifier and the lower nibble designates software version
ffH	Function ID number: 01H = Utilities Dump, 02H = One Preset Dump, 03H = All Presets Dump
F7H	End of System Exclusive Message

System Exclusive Packet

VALUE	DESCRIPTION
F0H	Start of System Exclusive Message
08H	Fender Manufacturer ID
nnH	nn = Device ID (minus one)
21H	Amp ID number 21H. The upper nibble identifies the Cyber-Deluxe™ amplifier and the lower nibble designates software version
ffH	Function ID number: 01H = Utilities Dump, 02H = One Preset Dump, 03H = All Presets Dump
PnH	Packet Number
Data	Data bytes: The data bytes have been formatted following the MIDI Specification
cbH	Checksum byte used for error checking
F7H	End of System Exclusive Message

System Exclusive End of File Message

VALUE	DESCRIPTION
F0H	Start of System Exclusive Message
08H	Fender Manufacturer ID
nnH	nn = Device ID (minus one)
21H	Amp ID number 21H. The upper nibble identifies the Cyber-Deluxe™ amplifier and the lower nibble designates software version.
ffH	Function ID number: 01H = Utilities Message, 02H = One Preset Message, 03H = All Presets Message
7BH	End of System Exclusive File Byte
F7H	End of System Exclusive Message

MIDI Dump Initiation Message

VALUE	DESCRIPTION
F0H	Start of System Exclusive Message
08H	Fender Manufacturer ID
nnH	nn = Device ID (minus one)
21H	Amp ID number 21H. The upper nibble identifies the Cyber-Deluxe™ amplifier and the lower nibble designates software version.
04H	Message ID number for additional parameter controls.
23H	ID number indicating request for a MIDI Dump
00H	Unused Data Byte
00H	Unused Data Byte
00H	Unused Data Byte
ddH	Dump ID byte: 01H = Transmit Utilities, 02H = Transmit One Preset, 03H = Transmit All Presets
7BH	End of System Exclusive File Byte
F7H	End of System Exclusive Message

Appendix 5 SysEx ◊ Edit Preset Parameters

System Exclusive messages can also be used to edit individual parameters/settings in the amplifier preset. This appendix contains tables describing the System Exclusive message components and protocol for editing preset parameters.

The System Exclusive device ID must be set to match to accomplish the edit function.

NOTE: The nomenclature for values uses an H to designate that the one-byte value is expressed in Hexadecimal (00H – FFH).

System Exclusive Preset Edit Message

VALUE	DESCRIPTION
F0H	Start of System Exclusive Message
08H	Fender Manufacturer ID
nnH	nn = Device ID (minus one)
21H	Amp ID number 21H. The upper nibble identifies the Cyber-Deluxe™ amplifier and the lower nibble designates software version.
05H	Message ID number for additional parameter controls.
ddH	Parameter ID number for additional parameter controls (See table below).
vvH	Value for the parameter you wish to edit (See table below).
7BH	End of System Exclusive File Byte
F7H	End of System Exclusive Message

Cyber-Deluxe™ Amplifier Parameter/Setting Table (Appendix 5 continued)

PARAMETER ID	PARAMETER ID NUMBER (ddH)	VALUE (vvH)
Amp Type Selection	00H	00H = Tweed 1
		01H = Tweed 2
		02H = Tweed 3
		03H = Blackface 1
		04H = Blackface 2
		05H = Blackface 3
		06H = Dyna-Touch 1
		07H = Dyna-Touch 2
		08H = Dyna-Touch 3
		09H = Dyna-Touch 4
		0AH = British 1
		0BH = British 2
		0CH = British 3
		0DH = Modern 1
		0EH = Modern 2
		0FH = Modern 3
Reverb Type Selection	01H	00H = Room 1
		01H = Room 2
		02H = Room 3
		03H = Hall 1
		04H = Hall 2
		05H = Hall 3
		06H = Arena 1
		07H = Arena 2
		08H = Plate 1
		09H = Plate 2
		0AH = Spring 1
		0BH = Spring 2
		0CH = Spring 3
		0DH = Spring 4
		0EH = Ambient 1
		0FH = Ambient 2

PARAMETER ID	PARAMETER ID NUMBER (ddH)	VALUE (vvH)
Mod. F/X Type Selection	02H	00H = Chorus 1
		01H = Chorus 2
		02H = Chorus 3
		03H = Flange 1
		04H = Flange 2
		05H = Flange 3
		06H = Phaser 1
		07H = Phaser 2
		08H = Touch Wah
		09H = Pedal Wah
		0AH = Tremolo 1
		0BH = Tremolo 2
		0CH = Tremolo 3
		0DH = Vibratone 1
		0EH = Vibratone 2
		0FH = Vibratone 3
Delay Type Selection	03H	00H = Digital 6
		01H = Tape 1
		02H = Tape 2
		03H = Tape 3
		04H = Tape 4
		05H = Tape 5
		06H = Tape 6
		07H = Ducking 1
		08H = Ducking 2
		09H = Ducking 3
		0AH = Ducking 4
		0BH = Digital 1
		0CH = Digital 2
		0DH = Digital 3
		0EH = Digital 4
		0FH = Digital 5

Cyber-Deluxe™ Amplifier Parameter/Setting Table (Appendix 5 continued)

PARAMETER ID	PARAMETER ID NUMBER (ddH)	VALUE (vvH)
Compressor Selection	04H	00H = Off
		01H = Low
		02H = Medium
		03H = High
		04H = Even Higher
Noise Gate Selection	05H	00H = Off
		01H = Noise Gate 1
		02H = Noise Gate 2
		03H = Noise Gate 3
Noise Gate Depth	06H	00H–7FH (=0–127)
Expression / CC Pedal	07H	00H = Gain
Assignment		01H = Volume
		02H = Treble
		03H = Middle
		04H = Bass
		05H = reserved
		06H = Master Volume
		07H = Reverb Level
		08H = Reverb Time
		09H = Mod. F/X Level
		0AH = Mod. F/X Parameter
		0BH = Delay Level
		0CH = Delay Time

Appendix 6 SysEx ◊ Handshake

Following the guidelines of the MIDI specifications, data is transmitted as follows: First, the System Exclusive Header is sent. The amp will wait 200ms to look for a handshake. If no handshake is received then the amp will transmit the first data packet. The transmission continues until all the information has been sent. After the last packet, the End of File message is sent. In order for handshaking to work the Device ID must be set to the same ID number as the amp. The handshake messages the amp will respond to are:

Handshake System Exclusive Message

VALUE	DESCRIPTION
F0H	Start of System Exclusive Message
7EH	Universal Message
nnH	nn = Device ID (minus one)
hdH	Handshake ID: 7CH = Wait, 7DH = Cancel, 7EH = Not Acknowledge, 7FH = Acknowledge
ppH	Packet Number
F7H	End of System Exclusive Message

Appendix 7 Troubleshooting

No sound coming from the amp—

- Is there anything plugged into the HEADPHONES jack? Remove.
- Is the TUNER ON? Press EXIT.
- Turn TRIM, GAIN, VOLUME, TREBLE, MIDDLE, BASS, and guitar Volume all above minimum.

Cannot SAVE a preset—

- Is Memory Protection ON? See Memory Protect, page 29.

Clean tone setting sounds distorted—

- Is the PEAK LED flashing? Reduce VOLUME level.
- Is the TRIM red LED flashing? Reduce TRIM level.

The 4–button Footswitch does not work—

- Make sure it is connected to the FOOTSWITCH jack and not one of the MIDI jacks.

The amp is not responding to any MIDI Program Change messages from external devices—

- Make sure the MIDI Receive Channel is set properly. See MIDI Receive Channel Selection, page 28.
- Make sure the MIDI cables are connected properly.

The amp is not responding to any MIDI Continuous Controller messages from external devices—

- Make sure the MIDI Receive Channel is set properly. See MIDI Receive Channel Selection, page 28.
- Make sure the Continuous Controller number matches the value set in the Utility menu, or one of the predefined numbers listed in the appendices (see Continuous Controller device number setting, page 28).
- Make sure the MIDI cables are connected properly.

The amp is not responding to any MIDI System Exclusive messages from external devices—

- Make sure the System Exclusive ID is set properly. See System Exclusive ID Selection, page 28.
- Make sure the MIDI cables are connected properly.

The display shows "Er" or the unit is unresponsive—

- Press EXIT, or switch POWER OFF and ON.
- If error messages reoccur, copy down the code(s) displayed (some error messages consist of consecutive repeating codes). Then consult an authorized Fender® Service Center with the error message information.

To locate MIDI resources online, visit: www.midi.org

If a problem persists, consult an authorized Fender® Service Center, or point your browser to: www.fender.com or www.mrgearhead.net and click on support.

Appendix 8 Specifications*

TYPE:		PR 444	
PART NUMBERS:		022-9001-000 (120V, 60Hz) USA	022-9011-000 (110V, 60Hz) TW
		022-9031-000 (240V, 50Hz) AUS	022-9041-000 (230V, 50Hz) UK
		022-9051-000 (220V, 50Hz) ARG	022-9061-000 (230V, 50Hz) EUR
		022-9071-000 (100V, 50Hz) JPN	022-9091-000 (220V, 60Hz) ROK
POWER REQUIREMENTS:		180W	
POWER OUTPUT:		65W @ 5%THD	
RATED LOAD IMPEDANCE:		8Ω	
SENSITIVITY:		Adjustable using the TRIM control	
PREAMP INPUT IMPEDANCE:		>1MΩ	
EFFECTS LOOP JACKS**	**NOMINAL LEVEL:**	-10dBV / +4dBu switchable	
	OUTPUT IMPEDANCE:	220Ω, impedance balanced	
	INPUT IMPEDANCE:	12kΩ (min), impedance balanced	
LINE OUT JACKS**	**NOMINAL LEVEL:**	+4dBu	
	OUTPUT IMPEDANCE:	300Ω, impedance balanced	
EXPANDER OUT JACK**	**NOMINAL LEVEL:**	Variable	
	OUTPUT IMPEDANCE:	220Ω, impedance balanced (Right channel / mono switchable, phase switchable)	
SPEAKER COMPLEMENT:		Celestion G12T-100, 12", 8Ω (P/N 054420)	
FUSES	**PRIMARY:**	F4A (100V, 120V units), F1.6A (230V, 240V units)	
	SECONDARY:	T1A (digital supply)	
FOOTSWITCH:		4-button, preset quick access (P/N 057219) 5-pin, DIN cord (supplied)	
EXPRESSION PEDAL:		1/4" (Tip–Sleeve) analog, compatible with any passive volume pedal, 10kΩ to 250kΩ (use a pedal having a 20kΩ potentiometer with a 25A taper for optimal performance).	
MIDI JACKS:		IN, OUT	
HEADPHONES JACK:		1/4" Stereo	
DIMENSIONS	**HEIGHT:**	18-1/2 in	(47 cm)
	WIDTH:	22-27/32 in	(58 cm)
	DEPTH:	11-3/16 in	(28.4 cm)
WEIGHT:		45 lb	(19.6 kg)

**Product specifications are subject to change without notice.*

***Tip=Positive (+), Ring=Negative (–), Sleeve=Ground (GND)

P/N 056393 REV A